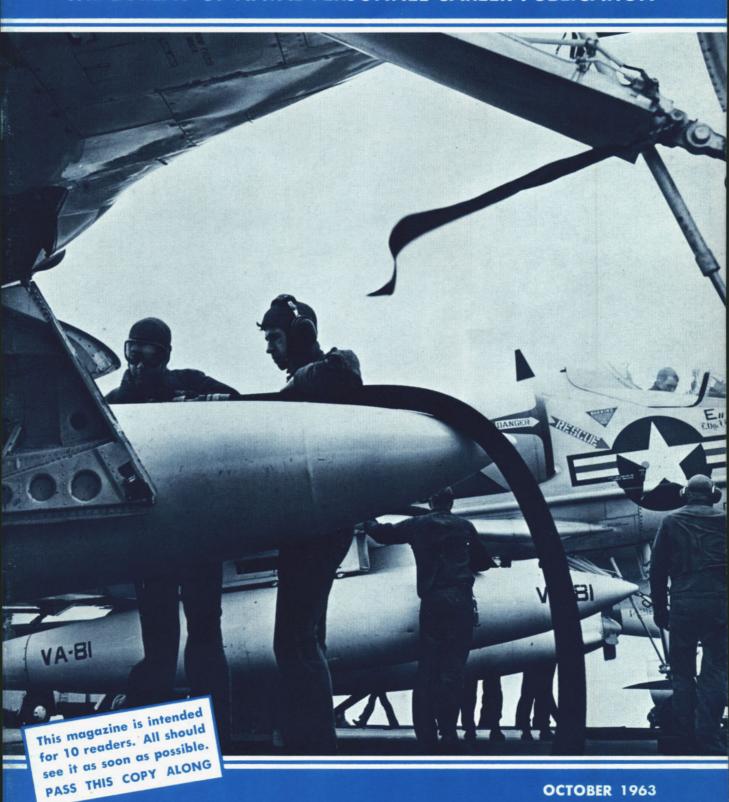
ALL HANDS

THE BUREAU OF NAVAL PERSONNEL CAREER PUBLICATION







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VICE ADMIRAL W. R. SMEDBERG III, USN
The Chief of Naval Personnel

REAR ADMIRAL A. S. HEYWARD, Jr., USN The Deputy Chief of Naval Personnel

COMMANDER C. E. JOHNSON, USN Director Special Services Division

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John A. Oudine, Editor

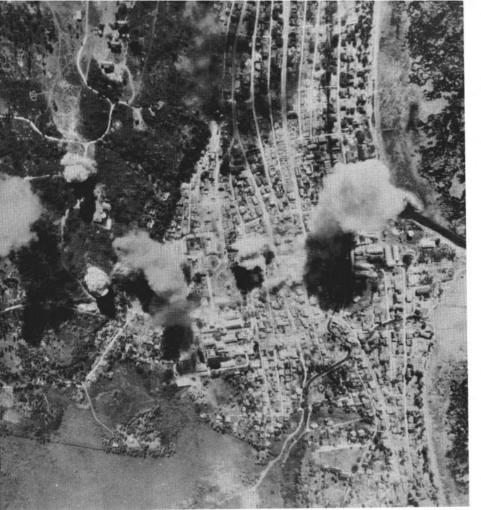
Associate Editors

G. Vern Blasdell, News Jerry Wolff, Research

Don Addor, Layout & Art

French Crawford Smith, Reserve

- FRONT COVER: FLIGHT FUEL FILL-UP—A4C Skyhawks of Attack Squadron 81 have their tanks filled with jet fuel before the start of flight operations from the deck of an aircraft carrier underway in the Atlantic.
- At left: IN THE SPOTLIGHT—Fleet ballistic missile rays as she arrives at Holy Loch, Scotland. The Polaris submarine, USS Sam Houston (SSBN 609), is lit by sun's packer had been on patrol in the Mediterranean Sea.
- CREDIT: All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.



FOR THE RECORD — Photograph records damage to Guam during WWII.

THE DEVELOPMENT of photography and "photo intelligence" in the Navy is, in a way, a typical story—that is, one of rapid change and progress. It also is an unusual one. Navy photography has followed a varied and interesting path from the day of Matt Brady and his fellow civilian photographers, with their crude, bulky equipment, to the sophisticated gear used by the Navy PHs of the 1960s.

Brady, who took what is probably

the earliest existing naval photograph, gained such lasting fame as a chronicler of the scenes of the Civil War years that his photographs are today referred to as "Bradys," in the same manner that paintings are referred to as "Van Goghs," or "Rembrandts," for the men who painted them. The notation, "Brady, N. Y.," appears at the edge of a picture of Commodore Matthew C. Perry. This photo has been claimed to be the granddaddy of photos now

SHOOT IT — Navy photographers film impact area during gunnery exercise.



The Role

in the naval files. It was taken in 1848 at the homecoming of the Vera Cruz squadron following the Mexican War.

Brady had assistants, assigned in pairs to record the activities of the Union forces. While Brady himself took few naval photographs other than the Perry portrait, it is due to his extensive financing and organizing that today we have a wealth of dramatic and graphic portrayals of the men and ships that carried out the naval blockade which was so important to the success of the Union forces in the Civil War.

NAVAL PHOTOGRAPHY from the Civil War down through the years served three basic needs: Historical documentation, public information, and recruiting. But it was also to serve a scientific purpose. Take photo-triangulation for example, a development of the '30s. It was in World War II that the Navy's Bureau of Ordnance began operational use of a system of photo-triangulation in gunnery to pinpoint the impact areas of shells in relation to a target. This was the first major operational use of photography in the Navy.

There are lots of "firsts" in naval photography and photographic interpretation. In 1913, the Navy adopted the airplane as an operational instrument. Three years later, at Pensacola, Fla., Ship's Cook 3/c W. L. Richardson climbed into an airplane with a camera resembling a cigar box in his hand. He went aloft, tripped the shutter, and received credit for the first Navy aerial photograph.

Richardson, later commissioned an ensign USNR, was selected to plan the establishment of the Navy's first school of photography and organize the photographic division in what was to become the Bureau of Aeronautics. The school began instruction in early 1918 at the Naval Air Station, Miami, Fla. Students attended a six-week course and were then assigned to photo labs aboard air stations at home and abroad.

WITH THE SIGNING of the Armistice in November 1918, the school

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of the Camera in the Navy

was closed and many photographers left the service. The Navy experienced an acute shortage of trained photographers until a second school of photography was established at the Naval Air Station Anacostia, Washington, D. C., in January 1920.

Between 1920 and 1923, photography became of increasing importance in the Navy. The first successful combination of aerial and surface photography occurred when aerial camera parties collaborated with surface photo-triangulation groups in photographing the fall of shot in long-range battle practice on the Southern Drill Grounds off Cape Henry, Va., and, later, with the Fleet in Cuban waters. Also, during this period, the rating of photographer's mate (PhoM) was established.

By August 1923, the school facilities at Anacostia were no longer able to satisfy the Navy's needs for photographic training and the school was transferred to the Naval Air Station at Pensacola, Fla., where it is located today. The school graduated 24 men, in two classes of 12, each year. This was sufficient to maintain a maximum of 250 photographers.

Mapping, another important use of aerial photography, was extensively used in the 1920s and 30s. The first Navy Distinguished Flying Crosses were awarded to a chief photographer and a lieutenant for a mapping project in Alaska for the Interior Department in the 1930s.



BACK IN WW II — Navy photographer mans camera to gather information about enemy installations.

N AUGUST OF 1940, Vice Admiral Robert Lee Chormley was assigned to London as Special Naval Observer to the American Embassy. He became aware of a great deal of activity in Britain in a new field of intelligence — photo interpretation. The British had established a photo interpretation headquarters on a large private estate at the village of Medmehan. Here the English studied and refined photo interpretation and conducted a school on the sub-

ject for both officers and enlisted.

Realizing the potential importance of aerial photography as a source of intelligence, Admiral Ghormley forwarded a recommendation to Washington that personnel with a suitable photographic background be selected to visit England and study the photo interpretation center. LCDR Robert S. Quackenbush, USN (now a retired rear admiral), was selected. He went to England in September 1941. After studying the concepts of photo interpretation and speaking with the British experts, he recommended that the United States should waste no time in establishing its own photo interpretation school.

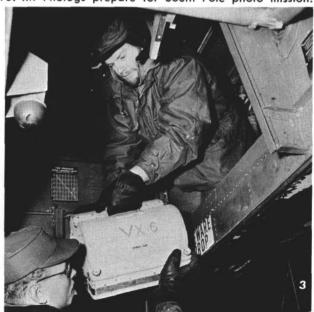
He returned to the States and, with the full cooperation of Admiral Ernest King, established the Navy's first school of photo-interpretation at Anacostia, D. C., in January 1942.

PHOTO INTERPRETATION in the U. S. Navy was born in a contradictory situation. In general, the concept met with resistance. No one knew exactly what it was or how effective it would prove. Fortunately, the cooperation extended by Admiral King included a "blank check" policy that allowed Quackenbush and his assistants to launch an adequate program of study and schooling.

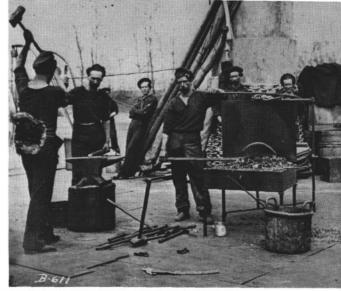
We had taken our cue from the British, who, in turn, had taken theirs from Europe. Like the science of photography itself, air reconnais-

A NAVY FIRST — W. L. Richardson aims camera in 1916. Rt: Photogs prepare for South Pole photo mission.









BRADY AND CO — Crew of monitor appears in photo claimed to have been taken by Brady. This is one of old photos in U. S. Navy files. Rt: Brady's assistant, Fowx, photographed Lehigh crew in 1864.

sance (and therefore photo interpretation), began in France. The first crude efforts of the French took place in the early 1840s when the French Army attached cameras to kites for mapping purposes. Shortly thereafter, the Russians developed an aerial photographic capability

using balloons.

They used it during their war with Finland in 1939, at the beginning of World War II, with specially-configured Red Air Force and Navy aircraft photographing strong point locations, defensive installations, shore batteries and fortifications along the Mannerheim Line. The intelligence derived from this aerial photo reconnaissance effort was the deciding factor in the success of the Russians breaking Finland's rugged defense. From that point aerial photographic reconnaissance assumed an established importance in the Soviet

Armed Forces. The Germans also employed aerial reconnaissance in breaking another famous defensive line, the Maginot.

German air reconnaissance capabilities had grown rapidly during World War I. In 1915 the German Air Force was said to have taken 400 photographs a day. In 1916 the figure rose to 1500, and to 4000 per day in 1917. The French were as active, and in periods of intensive operation, processed up to 10,000

photographs a night.

Aerial reconnaissance experienced a change in application from World War I to World War II. In World War I, the Germans concentrated on aerial photography by their land-based air forces rather than by naval air forces. This was due basically to the limited character of naval engagements and comparatively short range of naval aircraft. One instance

in which the German Navy did employ aerial reconnaissance to a considerable extent was the photographing of English ports and coastline from dirigibles cruising over the North Sea.

N WORLD WAR II the application of U. S. Navy aerial photographic reconnaissance came into its own due to the widespread character of naval engagements in the Pacific. It was to meet the requirement for intelligence in this theater that LCDR Quackenbush spurred the training of U. S. Navy and Marine Corps personnel in photo interpretation.

The first classes at Anacostia were no larger than 26 or 27 students due to the limited space available. This figure doubled when the school moved into the new U. S. Naval Photographic Science Laboratory (later designated as the U. S. Naval Photographic Center) when it

opened in February 1943.

It wasn't an easy job. The new photo science team had to build, from scratch, a school and curriculum designed to teach a subject that was unknown in this country. They modeled the school after the British photo interpretation center at Medmehan. Fortunately for the Navy and the country, these first practitioners were men of exceptional talent and ability. The Navy could not go out and recruit men who fired 40 millimeters in civilian life, but it could, and did, locate men who had worked in photography for years as cameramen and lab technicians.

THE FIRST GRADUATES of the Photographic Interpretation School were assigned to photo labs through-

PUZZLING — Series of photographs are pasted together to make a map.



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out the Navy. Since there was no precedent for assignment, they were placed wherever it was thought the need for photo interpretation was most apt to arise. Men were sent aboard carriers, to Pearl Harbor, and some were even assigned to Chiang Kai-shek's Nationalist forces.

The "blank check" policy with which Admiral King supported the school was extended to the entire photo interpretation effort. Without established guidelines for the program there were no written directives, and the school was able to employ a free-wheeling technique in establishing operative photo interpretation units throughout the Navy.

The first was the South Pacific Photographic Interpretation Unit, organized at Pearl Harbor in September 1942. This unit served as a model for the units which were organized

throughout the Pacific.

As the tempo of the war increased, the use of photo interpretation expanded. It has been estimated that as much as 90 per cent of U. S. intelligence gathered in the Pacific during World War II was derived from photo interpretation.

To AID THE INTELLIGENCE effort in the Pacific, where some landings had to be made on islands in poorly charted waters, the Naval Photo Interpretation Center began a program of intensive research on water depth determination, and devised methods of measuring water depths on aerial photographs.

These methods were used in preparation for the amphibious assault on Okinawa. Aerial photography was flown one month before the landing, and the photo interpreters measured

water depths over the fringing reef. After the landing, swimmers made direct measurements on the reef. These measurements showed that the photo interpreters' average error of estimate was less than one foot, and their maximum error less than two feet, for depths up to 30 feet.

The most sophisticated piece of photographic equipment to be developed as a result of the depth determination problem was the SONNE aerial camera. The development of this small, compact unit marked a major advance in the field of photo interpretation.

This aerial camera was developed to solve the specific problem of obtaining rapid series of sharp photographs for intelligence purposes from aircraft flying at high speeds and

low altitudes.

Two Navymen played an important role in the progress of the aerial camera development program. The late Captain Thorne Donnelley, USNR (Ret.), devoted much of his time (and money) to bring the program to fruition. Chief Photographer's Mate Fred K. Mansfield was instrumental in the technical development of the equipment.

Along the shores of the Bahamas, which were selected because of their similarity to the beachheads facing U. S. forces in the Pacific, Chief Mansfield took the camera on test flights to "iron out the bugs" and develop the capabilities of the equipment. His fast, low flights along the beaches netted valuable research information (and, incidentally, some candid cheesecake).

A LTHOUGH ANY RECAP of photo interpretation efforts in World War



HIDE AND SEEK — Enemy aircraft are spotted on the ground by the sharp eye of a Navy aerial camera.

II necessarily dwells at length on activities in the Pacific Theater of Operations, Allied photo reconnaissance capabilities for intelligence purposes in the European Theater also developed at a rapid pace.

Extensive photo reconnaissance missions preceded the invasions of Sicily and the Italian mainland. Large Italian ports were photographed by Allied reconnaissance planes daily, and the ports known to be harboring ships of the Italian Fleet were photographed twice each

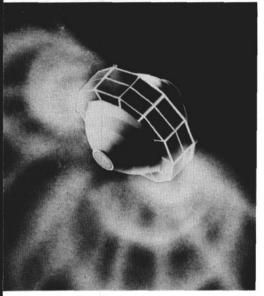
day.

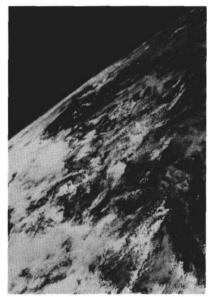
Twelve months before the Germans launched their V-1 rockets against England from Peenemunde, Allied photo interpreters were aware of the existence and locations of the weapons. As fast as the Germans built their steel and concrete V-

THE WORD — Photos of Pacific islands enabled Navy to build models for planning of WW II invasions.









SATELLITES and rockets have added great depth to aerial photography.

weapon launching sites along the French coast, U. S. and British photo interpreters detected the sites and Allied bombers destroyed them.

Although the Germans eventually switched to lightly constructed launching sites that could be installed under cover of night or poor weather, interpreters were often able to detect these sites by analyzing photographs of the same areas taken at different times which showed evidences of excavation and changes in vegetation cover.

The statement of a regimental in-

telligence officer gives us an enlightening view of the extent to which Allied commanders came to rely on photo intelligence:

"The operation for seizing the town of Wurselen was conducted entirely with aerial photos. All preliminary planning, initial reconnaissance, and the regimental commander's final plans were based on the photos. His attack order was issued with an overlay made from them. The photos also were used for planning by supporting artillery tanks and tank destroyer units. All artillery tar-

gets pinpointed by the infantry were entered on the artillery photographs. The photos were the basis for all intelligence overlays sent to lower units. The interrogators of prisoners of war used aerial photographs to orient the prisoners. The cannon company used aerial photos to select likely locations for advance gun positions; the antitank company, to select positions for night defense; and the service company, to select possible supply routes and bivouac sites."

PREPARATORY TO the Allied invasion of Normandy, photo reconnaissance planes took thousands of shots of the French coastline. The photographs were rushed to Washington where Navy photo interpretation personnel, working in isolated security on the sealed-off third floor of the Naval Photographic Center, constructed detailed photographic mosaics of the harbors, coves, beaches, and landmarks awaiting the Allies.

As the "state of the art" of photography has progressed over the years, so has photo interpretation. The French, with their cameras attached to kites, were singularly prophetic of the science that has grown hand in hand with warfare from the early 1800s. Photographic interpretation has progressed to the point that it is not only important, but necessary, to the continued readiness and capability of our forces.

By picking up practically any daily newspaper, one can imagine the paths that photo interpretation will follow in the years to come. Weather satellites orbit the earth, sending us photographs of cloud cover and atmospheric conditions around the globe.

As man delves further into the mysteries of his own planet and those of the solar system, he will be attempting to gain the bulk of his information from "interpretation." Until he is able to go to these neighboring planets, he will have to rely on what his sensors rather than his senses tell him. The sensors take various forms. Infra-red scanners, radar and television will join the camera as the extensions of man's senses into space.

The Navy can be proud of its pioneering role in the field of photo interpretation in the United States and the contribution which its efforts are making to the furtherance of scientific knowledge.

-Alan Whitney, JO1, USN

NPIC Has Come a Long Way Since Its Beginning

The value of the services performed today by the Naval Photographic Interpretation Center can best be illustrated by its work during the Cuban crisis. Here, NPIC literally shaped history.

For its efforts, NPIC was awarded the Navy Unit Commendation by the Secretary of the Navy. Here is the citation:

For exceptionally meritorious service from 1 May through 31 Dec 1962. During the period of international crisis, the U. S. Naval Photographic Interpretation Center received, reproduced, and conducted immediate analysis and fimely distribution of intelligence photography to the President of the United States, his principal policy advisors, and members of the U. S. Intelligence community.

The Center, by rapid adjustment to the emergency, and through diligent and skillful application of professional techniques, assisted to a notable degree in the identification of the nature and magnitude of the threat to world peace.

Although working under unusual demands and great stress, personnel of the Center were able to analyze and process a massive volume of critical intelligence material, thereby contributing to the immediate and effective response by the United States to the developing threat.

The outstanding achievement of the Naval Photographic Interpretation Center reflects great credit upon each member of the organization and upon the U.S. naval service.

As a result of this action, all personnel attached to and serving with the U. S. Naval Photographic Interpretation Center during the above period, or any part of that period, are authorized to wear the Navy Unit Commendation ribbon.







THE NAME of USS Rogers (DDR 876) is in honor of the Rogers brothers (I. to r.) Edward K., Jack E., Jr., and Charles.

DD Carries on Tradition of Rogers Trio

In the choppy, churning southwest Pacific one muggy November morning 21 years ago, uss *New Orleans* (CA 32) was in trouble.

An enemy torpedo had hit the big cruiser's port bow and ripped into two magazines.

The blasts that followed literally ripped off the forward part of the ship.

One of the ships of Task Force 67, New Orleans had been slugging it out with enemy DDs during the Battle of Tassafaronga, off Guadalcanal, on 30 Nov 1942.

The cruiser was hurt, but not lost. She made it into port and was later repaired.

Many of her crew, however—all the 178 officers and enlisted men in the dismembered bow and number two turret—were killed.

Three of those killed were brothers, Edward, Jack and Charles Rogers—a family name that has since become well known to destroyermen.

Two years after the Battle of Tassafaronga, uss Rogers (DD 876, now DDR 876), named in honor of the Rogers brothers, was launched at Orange, Texas.

The boys' mother, Mrs. Josie Rogers of Holly Hill, Fla., attended and sponsored the ship.

A few months later, Rogers was commissioned and assigned to the Pacific Fleet. In following years, the destroyer was to become a symbol of far-reaching Pacific operations, and a hard-working ship respected throughout the Fleet.

Since 1945, Rogers has made a total of 12 Far East cruises.

In 1949, while working with the Seventh Fleet, she participated in the evacuation of American civilians from China.

In 1951 and 1952, Rogers served with Task Forces 77, 95 and 96 in Korean waters. She engaged in shore bombardments, blockades and patrol duties.

In 1954, the DD helped evacuate the Tachen Islands. In 1956, she rescued three Japanese fishermen adrift for eight days.

Twice, in 1959 and again last year, Rogers won "E" awards as the most battle-ready ship of her squadron. Also in 1962, she was awarded the "A" for antisubmarine warfare proficiency, the "C" for communications efficiency, and several "Es" for gunnery accuracy.

In June, after 18 years in the Pacific, Rogers departed San Diego

for the East Coast and modernization at Charleston, S. C.

En route to Charleston, she stopped at Mayport, Fla., for the express purpose of again making contact with Mrs. Josie Rogers and members of the Rogers family.

It was the first visit to the destroyer that Mrs. Rogers had made since the launching nearly 19 years ago. Five of her surviving children were also on hand to greet the ship.

One of the Rogers boys, Emmett Hugh, was particularly interested in visiting the ship named after his brothers. After receiving the tragic news of the Battle of Tassafaronga in 1942, Emmett volunteered for Navy service. Then just 17 years of age, he requested duty on board New Orleans, and served in the same warship in which three of his brothers had given their lives.

CHANGING OCEANS—After 18 years in Pacific, USS Rogers (DDR 876) has cruised to Atlantic to undergo modernization at Charleston, S. C.



DESERT DEEP FREEZE

TWENTY MILES WEST of Phoenix, Ariz., on Highway 80, can be found the largest, single concentration of military aircraft in the world. Here, over 800 acres of desert are surrounded by a high, chain-link fence, and inside can be found nearly 2300 aircraft of over 47 types and models, ranging in size from single engine trainers, to the largest transports and radar search craft.

This is the Naval Air Facility at Litchfield Park, the naval aircraft deep freeze, located in some of the hottest, driest desert in the country. It is here that the Navy is saving taxpayers millions of dollars every year with its concept of storing aircraft in a huge, reserve pool for

future emergencies.

Visitors to this military installation are often met at the gate by a congenial man in his mid-40s, known as "Rolly" Franklin. His enthusiasm and interest in the Navy are made evident by the volume of facts and figures that pour from his reportorial memory.

"The Navy Department's Bureau of Naval Weapons has all types of aircraft here," he begins, "both propellor driven and jets. These vary in value from a paltry \$100,000 to more than two million, with some of the larger search planes having radar installed in them which is

worth more than the airplane itself."

He points to the horizon where the radar planes can be seen dwarfing the rest with their massiveness, and looking ungainly and top-heavy with their huge, umbrella-shaped radomes atop their fuselages.

Sometimes Rolly's discourse is interrupted by the thunderous racket of jets racing down the runway in what appears to be an uncomfortably close formation. After they have lifted into the air and the noise has diminished to that of a boiler factory, Rolly provides an explanation.

"They're the Blue Angels, the Navy's famous precision flying

team," he says.

"The CO sent them a message and invited them to come to Arizona to practice, where they could fly every day, and their leader sent the reply back, 'We're on our way.'"

THE STORY OF Litchfield NAF dates back to World War II when an aircraft company in Litchfield was awarded a contract to modify the P4Y's being built in San Diego, Calif. As these aircraft were modified, the Navy had to accept and store them until they could be assigned to service. This resulted in the forming of an "acceptance unit" at Litchfield Park.

"When I first came here," the

old-timer reminisces, "there wasn't even a landing strip. It was late in the summer—and hot. We landed right out there in the desert and kicked up such a cloud of dust that the plane with us had to circle for a half-hour before the pilot could see the ground again."

The Navy transferred both civilians and military men from California and the first aircraft was accepted in 1944. The number of planes increased at a rapid rate until late 1945, at which time it could be seen that the war was coming to an end and action was taken to reduce the output of all war material.

This, of course, resulted in tremendous excesses of material, some of which, like aircraft, had been manufactured at considerable expense. Knowing that post-war budgets would not allow the maintenance of all their planes, and not wanting to dispose of them immediately, the Navy conceived the idea of storing the excess for any future emergency that might arise.

Aside from normal wear and tear, the worst enemy of aircraft is corrosion, whereby air and moisture combine to eat away at the metal and weaken it. The Navy reasoned that if extra aircraft were stored in an area free of such damaging moisture, they could be held as a reserve stock

IN PLANE SITE - F-1 Fury jet fighters form long line on hot desert sands at NAF, Litchfield Park, Arizona.





'LOTS A PARKING' — View of Litchfield shows some of the nearly 2300 aircraft it has in storage at the NAF.

for the future. The ideal situation, of course, was to place the aircraft in a huge deep freeze, but the practical answer lay in an area of Arizona known by its residents as the Valley of the Sun.

A naval investigation team found that this valley was one of the hottest and driest sections of the country, and ideally suited to their needs because the temperature often surpassed 110 degrees, with a humidity of less than 10 per cent. The best thing about the valley, however, was the fact that the normal average rainfall was less than eight inches a year.

Nearly 100 men were recruited to start the work of preserving the first planes.

PRESERVING AIRPLANES is not an easy job. Many of the Navy's aircraft had been operating near salt water, and the corroding salt deposit had to be cleaned off carefully. This called for a gigantic wash rack and an unlimited supply of water. All openings had to be sealed to keep out dust, moisture and nest-seeking birds and insects. Moisture-sensitive electronics and instruments had to be treated and preserved.

Dehydrating plugs were screwed into spark plug holes to keep moisture out and gun ports were sealed off. Weapons required separate, special storage and were shipped to a central supply center. Some of the aircraft were then completely covered with a white substance that made them look like gigantic cocoons on wheels.

When the Navy started this long-

range preservation program, there was little information and experience available as a guide. An aeronautical engineering section was organized to resolve problems.

Test after test finally resulted in a process of spraying the aircraft with a rubberized compound that dried to a complete protective seal, which could be easily and quickly stripped off when needed. A pure white was selected to reflect the heat, and all the aircraft that were in the best shape were covered. Others, which had war-weary and chipped paint, had only canopies, gun ports and windows sealed.

From time to time some of the aircraft have been removed from their cocoons. One of these times was in 1949, during an emergency

which was called Operation Haylift.

That year saw the mid-West completely covered with snow so heavy that hundreds of families were prevented from feeding their starving cattle and from getting provisions for themselves. Many of the cattle floundered in shoulder-deep drifts in search of food, and succumbed from sheer exhaustion.

The Navy readied some of the transports at Litchfield, and the arrival of others from nearby military installations augmented the hastily gathered fleet. Using the Navy installation as their center of operation, these aircraft air-dropped 871 tons of hay to the cattle and two and one-half tons of food to their owners. One hundred and seventy-one emergency flights were made

COMING OUT-Personnel work on plane being readied for return to service.





SECNAV Fred Korth and CO, CAPT John McManus, USN, inspect sentry dogs.

without a single mishap recorded.

By June 1950, incoming aircraft to be preserved had swelled the ranks of the sleeping war birds to 2000 craft of 19 types, but many didn't even get a coat of dust on them before they were needed again.

SUDDENLY in the summer of that year, the Navy and Marine Corps developed an urgent need for additional planes to help control the situation that had developed in Korea. It was then that the preservation program paid dividends. Additional help was hastily recruited, and with 915 technicians and supervisory personnel, Litchfield's accelerated depreservation program began. A great number of the planes were immediately sent to the fighting front and played an important part in the conflict. For this accomplishment, the station received the commendation of the Chief of Naval Operations.

With the emergency over, many of the planes returned to Litchfield again and were represerved. The depreservation operation was repeated in the fall of 1961 when the Berlin crisis flared anew.

The commanding officer of NAF Litchfield Park is Captain John W. McManus, usn.

"Many people," he says, "think we operate nothing more than a big graveyard here." Nothing could be farther from the truth.

The workload at Litchfield is under the coordination control of a technical staff in San Diego that carries the formidable title of "Bureau of Naval Weapons Fleet Readiness,

Pacific." This organization is responsible for overhaul and availability of combat aircraft throughout the entire Pacific area. Their work is prescheduled months in advance and extra work cannot be absorbed without disrupting fleet schedules.

The overflow of work is earmarked for Litchfield which, with its multitude of specialty shops and personnel, is completely capable of doing any type of aircraft repair work. In this way, NAF Litchfield has become an important part of the overall naval aircraft repair program.

Sometimes aircraft are depreserved and crated for trucking to some distant seaport for delivery to a foreign government under the Mutual Assistance Program. Thus, many aircraft that would otherwise have been scrapped, are today performing defense services and deterring aggression in other parts of the world.

For some aircraft, though, Litchfield is the end of the trail. Many of the Navy's aircraft have become so old or so completely obsolete through technological advances, that it is no longer feasible to save them. They then come under the reclamation program and are stripped of parts for use on other aircraft, the hulks melted down into ingots to be sold, and the proceeds sent to the Treasury.

TRAVELERS along the highway may sometimes get the impression that Litchfield NAF is a long dead airfield, with piles of tax dollars rusting away, but men stationed there claim that it would be hard to find a comparable "save-program" anywhere else in the world.

In the reclamation program, aircraft considered salvageable are completely stripped of all parts that could possibly be used on any other type of an airplane, whether Navy, Marine Corps, Air Force or Army. Each part is preserved and shipped to the activity needing it, or to a supply point for future use. In this way older aircraft in service, parts for which are no longer available from stocks and would cost prohibitive amounts of money to manufacture, are still kept flying.

"In the first two and one-half

months of last year," Captain Mc-Manus said, "parts and engines were recovered valued at nearly four million dollars, with a labor cost of only \$34,000. This amounted to \$114 worth of parts being saved for every dollar expended. The program for the first 11 months of the same year amounted to almost \$14,000,000, with a comparably high savings-to-cost ratio. Because of this, Litchfield claims to pay its way, plus depositing a surplus of funds with the Treasury every year."

Not all stricken aircraft are stripped of parts, however. Occasionally some will be set aside and sold "as is" to the highest bidder. These planes are completely demilitarized of all war potential and find their way into service as private company executive planes, or else are bought for their parts.

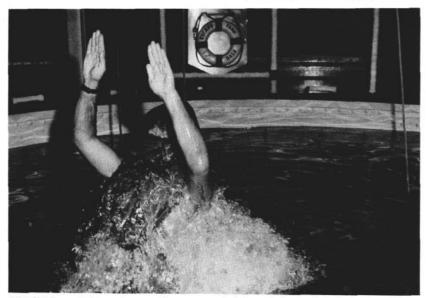
A few of them are given away. Municipalities and certain organizations, having a worthwhile need for an airplane for such purposes as monuments, can have one free by merely paying the shipping costs. Such aircraft are stripped of their instruments, electronics and armament, and completely sealed. If their destination is far from Litchfield, they are crated for truck or rail shipment.

The small work force on duty at NAF Litchfield, both Navy and civilian, have a large background of experience with naval aircraft maintenance and security.

In the operating forces, plane crews are usually highly skilled on a few types. The men at Litchfield, over the years, have had to develop proficiency on many types. It is for this reason that a vast work force isn't required and the payroll can be held down in the Navy's desert deep

freeze.

-George E. Hollister



TOPSIDE — Submariner surfaces, wearing hood devised to help breathing.

Training Tank Quals

PACIFIC FLEET SUBMARINERS have made a half-million ascents in the 119-foot-high escape training tank at Pearl Harbor, practicing escape procedures to qualify or requalify themselves for submarine duty. This practice may one day be responsible for saving their lives.

In a typical practice escape, Walter Williams, GMG1, who serves aboard uss *Carbonero* (SS 337), recently requalified in the tank. Though a poor swimmer, Williams entered the escape tank at the 50-foot level escape lock confident that all would go well. A successful ascent is not dependent on one's knowing how to swim—but on other knowledge.

At the beginning, Williams has to hang on to the lock to keep the buoyancy of his life jacket from taking him to the surface before he is ready. Two instructors with oxygen tanks strapped on their backs are at the 50-foot level to prevent him from making an unsafe ascent.

Williams throws his head back, purses his lips, starts exhaling, and lets go of the lock. With his head back, all instructors in the tank can see the air bubbles caused by his exhaling. This is important, because at a depth of 50 feet there is more than twice as much air in his lungs as he needs on the surface, and this air expands as the water pressure decreases during ascent. If he doesn't exhale this expanding air all the way to the surface it may enter his blood-stream and cause a serious ailment.

In addition to the two instructors at the 50-foot level, there is one just below the 30-foot level "blister" (air space), another below the 18-foot level lock, and one swimming down from the surface. Should Williams have any trouble, these instructors will converge on him and push him into the nearest air space. This is possible in spite of the fact that Williams speeds toward the surface at more than 300 feet per minute.

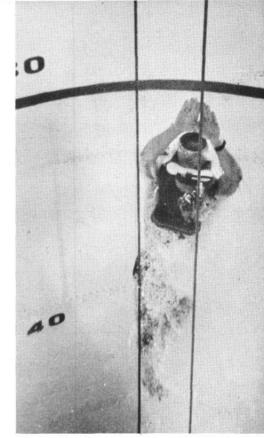
After Williams breaks the surface and climbs out of the tank he is given a check-up by a hospital corpsman and, receiving an OK, is requalified for another 30 months.

The training tank at Pearl Harbor is one of three known tanks of its kind in the world. The other two are at New London, Conn., and Gosport, England.

The 18-foot-diameter tank is filled with 280,000 gallons of fresh water, which is filtered so well that the tank bottom is visible from the top.

Besides providing facilities for requalifying submariners, the tank is used for training divers and Scuba teams. It also has proved to be one of the most interesting Navy exhibits to people visiting the base.

GOING UP — Instructors check submariner's breathing before letting him head for surface. Top: Subman shoots past the 40-foot mark as he heads for the top of the tower.









DUTCH TREAT-Sailors of Royal Netherlands navy help USS Rowan moor at Curacao. Rt: Orphan girl receives doll.

A Fine Touch with a Brush

When the destroyer uss Rowan (DD 782) pulled into Philadelphia not long ago after completing a Latin American goodwill cruise, her cargo was strictly regulation. No dolls, no cap guns, no pink paint.

It didn't begin that way.

When Rowan stood out of San Diego harbor two months previously she was loaded with textbooks, encyclopedias, dolls, pistols and other toys, maps and charts, lots of candy, plenty of paint and an X-ray machine. Her crew of 200 were to lay down their typewriters, tools and electronic gadgets and become volunteer painters who would spread paint on the inside of schools and hospitals all along their route. When their cruise was finished many Latin American people would think of the

United States as the Land-of-Much-Paint and friendly people.

The Rowan cruise was an international affair from the very beginning. When Rowan arrived at her first port of call, Acapulco, Mexico, it was found there were no cranes available to unload the two-ton X-ray machine destined for the children's hospital there. The entire project came to a screeching halt until a solution was found—with the help of citizens of three countries.

Rowan pulled alongside a Colombian merchant vessel that happened to be in port and the Colombians used their ship's booms to lift the X-ray machine from Rowan's decks to the Mexicans waiting on the pier.

The problem of moving the X-ray machine didn't curb the crew's re-

laxation. Acapulco is the city where natives dive from cliffs 130 feet high into 16 feet of surf and where vacation luxuries are legend. Acapulco's largest hotel invited the visiting Navymen to use its facilities, lockers and swimming accommodations, and for the next three days the hotel was the base of operations for the entire crew. (Few, if any, Navymen dove from the 130-foot cliffs.)

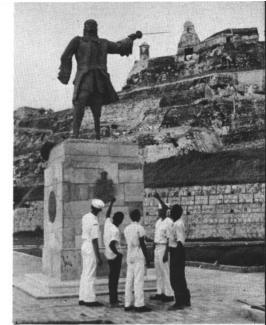
N AMAPALA, HONDURAS, the Project Handclasp program really got moving. Each morning volunteer task forces landed with cans of U. S. donated pink, blue and white paint and applied it to the inside walls of Amapala's two schools and a medical clinic. Today, a *Rowan* ship's plaque occupies a place of honor on the

FRIENDLY ROWAN holds reception for VIPs. Rt: Honduran students hang gift chart on newly painted walls.









HERE'S HOW-Costa Rican students view display of life in U.S. Rt: Crew members learn about Cartagena, Colombia.

-and a Handshake

door to the clinic's Rowan Room, so named by grateful hospital personnel.

Tying up in the next port, Puntarenas, Costa Rica, called for the best seamanship Rowan had to offer. Mooring alongside the pier was complicated by heavy Pacific ground swells to which Rowan was forced to lie broadside.

Despite the fact that the ship was constantly rolling from 15 to 20 degrees, the crew successfully rigged a gangplank to the pier. After contriving one brow that rose from four to 12 feet above the pier and crumpling another between the ship and the pier, they created one—with a grade of about 45 degrees.

And, despite the fact that it rolled and pitched, over this gangplank in the next two days passed almost 3000 interested visitors, all eager to get a glimpse of Uncle Sam's Navy. Included in that glimpse was a display of encyclopedias, text books, maps and charts which *Rowan* was donating to the schools of Puntarenas. In making this gift, *Rowan* was aided by members of the U. S. Peace Corps who are teaching in Puntarenas. They knew just which books would do the most good.

The Peace Corps team was also invaluable in helping to show the Spanish-speaking visitors around the ship. Among the visitors was a party of little girls from a local orphanage, who were given the VIP treatment by the crew. Each of the girls received a doll, and it was obvious from their joy that there could be

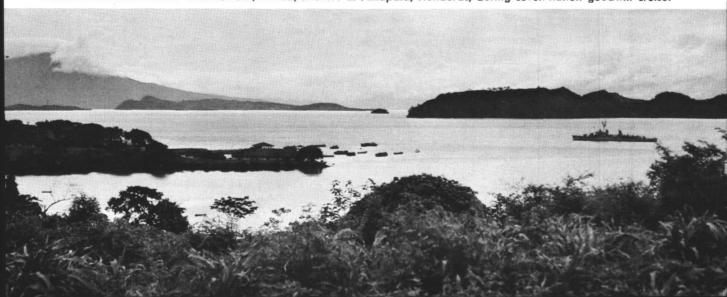


TEAM WORK—These men made possible the gift of an X-ray to the children's hospital in Acapulco, Mexico.

no better toy anywhere in the whole world.

The night before their departure *Rowan* sailors were treated to a concert by the local municipal band. The band played U. S. standbys including "Columbia, the Gem of the

SOUTHERN HOSPITALITY-USS Rowan (DD 782) anchors at Amapala, Honduras, during seven-nation goodwill cruise.







PARTY TIME—Midshipmen hand out refreshments during party for orphans. Rt: Rowan sailor tours San Felipe fort.

Ocean," "Bridge on the River Kwai," and the "Star Spangled Banner,"—all with a slight Latin accent.

N EXT Rowan entered the Panama Canal. Although Rowan made the canal passage at night, her decks were crowded with Navymen who didn't intend to miss the event.

When Rowan was lowered to the ocean on the Atlantic side of the canal, she set sail for the only mainland South American port—Cartagena, Colombia — that she would visit.

Tours of the fortified Spanish city of Cartagena, where the mammoth fortifications of Fort San Felipe overlook modern Cartagena, highlighted South American liberty. And again, Handclasp teams handed out everything from candy bars to cap guns.

In Cartagena Rowan was moored outboard of an American destroyer and three Colombian DDs. One Rowan Navyman recalls, "Each time we went ashore we found ourselves saluting, climbing and requesting our way across a large portion of the destroyer fleet of the Colombian Navy."

Then on to Willemstad, Curacao, where the presence of two Dutch destroyers triggered a bartering of sailor white hats. Navymen of both nationalities met and exchanged notes, not at all hampered by the fact that the notes were in different languages.

And here, too, white-clad ambassadors passed out dolls to little girls, cap guns to little boys, candy to both and, in general, made friends with Latin Americans.

Next Rowan berthed in Kingston, Jamaica, with several other American warships, including uss Wasp (CVS 18). Fabled Kingston, a city of 350,000, had room for everyone, and a local hotel opened its doors to the visiting American fleet.

Rowan's last day in Kingston was a colorful one. United States ships in the harbor were in full dress, and the streets were filled with sailors celebrating the holiday that is as old as America itself: the Fourth of July.

When Rowan left Kingston on the fifth of July her Handclasp cargo was depleted. Having seen exotic places and friendly people, she steamed for her new home port of Philadelphia, stopping for a one-day stay at Guantanamo Naval Base.

Rowan Navymen will make other cruises to other places, but they'll always remember their Latin American tour. More important, thousands of Latin Americans along their route will not soon forget the bringers of Handclasp-style good will and pink paint.

—Jon Franklin, JO1, USN

HEAR THIS - Costa Rican grade school band entertains Rowan Navymen.







TURN ABOUT-Crew members of USS Prairie tour Almirante Garcia and (rt.) Venezuelan sailors visit Prairie.

Venezuelan Visitors

The international reputation of Navy service schools was confirmed this summer when crews of two Venezuelan destroyers enrolled in nine-day courses at San Diego. The Venezuelans were crew members of visiting ships Almirante Garcia and General De Austria, and included 62 naval cadets.

Formal school training began immediately after their welcome by officers, midshipmen and crews of their host ships. Training included classes in operations, tactics, gunnery and damage control.

Both ships are Italian-built de-

stroyers, about the size of U. S. Navy destroyer escorts. Crews normally total 14 officers and 104 enlisted men, though at the time several Spanish-speaking U. S. midshipmen were embarked for liaison purposes.

Venezuelan Navymen spent their spare time in activities scheduled by host ships uss *Prairie* (AD 15) and *Coontz* (DLG 9), including tours of Disneyland, Los Angeles, the San Diego Zoo and a sports-picnic. All were a big success.

The ships returned to their home country via Acapulco and the Panama Canal Zone.

HELLO THERE—Venezuelan navymen exchange message with their own

exchange message with their own ship from the signal bridge of USS Prairie (AD 15) while aboard the AD.

VENEZUELAN destroyers rest in their berth during visit to San Diego.







ON CAMERA — C. Renaud, PH2, adjusts cameras in target drone. Below: Fast photos show missile's accuracy.

One Day in the Life

THE MISSILE-FIRING ships of the U.S. Atlantic Fleet would be less effective if it were not for the missile systems testing center at Naval Station, Roosevelt Roads, Puerto Rico.

It is here that the combat efficiency of newly launched missile ships is tested and evaluated.

Utility Squadron Eight provides the jet drones which are used in the evaluation operations. Two types of drones are used: the Q2C Firebee and the QF-9, a converted F9F Cougar jet.

The Cougar is ground-launched by complete electronic control. An escort aircraft, the DT-28 (T-28) two-seat trainer prop plane, follows behind the drone, with the DT-28 pilot guiding the drone electronically during take-off and landing.

DF-1D (FJ-3) jets take control after take-off to escort the drone to one of the two missile-firing areas off Roosevelt Roads. After a series of check-out maneuvers, the pilot controlling the drone brings it to the "hot leg" of the missile-firing area—a rectangular track several miles long. The ship conducting the missile-firing operations assumes control of the drone during firing exercises, while the escort aircraft executes a "hold" pattern at a safe distance.

Firing ships don't try actually to hit the drone, but calibrate their instruments to make a near miss. This does not damage the drone but still allows recording instruments to evaluate the ship's firing systems effectively.

During actual firing operations, electronic telemetering equipment in the nose of the jet drone relays pertinent information concerning each missile launch to the Caribbean Test and. Evaluation Detachment at Roosevelt Roads. This information provides an analysis of the ship's missile launching systems.

After firing operations are com-

ROADS GALLERY—USS John King (DDG 2) fires one to evaluate missile system.



ALL HANDS



TARGET AWEIGH - Firebee drops from P-2 for missile firing exercise.

of a Missile Target

pleted, the jet escort aircraft regains control of the drone for the flight back to Roosevelt Roads. The propeller-driven escort plane takes control of the drone a short distance from the station to assure a slower, safer air speed during the critical landing period.

Flying only a few feet from the drone, both pilots in the escort plane maneuver the pilotless target into a landing pattern, land the drone, then release a drag parachute for stability before applying the brakes. Certain portions of the landing techniques are coordinated with a fourman ground crew which also has remote control over the jet.

Q2C Firebees are used in much the same manner as the full-size jet drone, but give the evaluation centers a much more critical analysis of the ship's systems, for the smaller Firebee flies higher and faster than the Cougar. The Firebee is launched from a DP-2E (P2V) Neptune.

The Firebee is remotely controlled by technicians at Roosevelt Roads in an out-of-sight van located at the highest point on the station. There, with a large electronic plotting board and a remote control joy stick, the crew runs the drone through the required maneuvers and passes during firing operations.

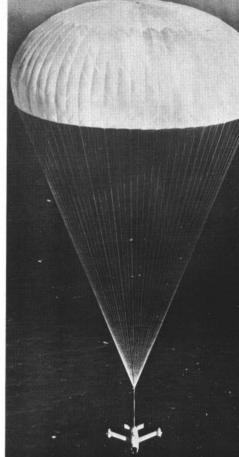
After operations are completed the drone is flown to a recovery area and ditched by parachute into the Caribbean. A helicopter recovers it. After maintenance the drone is ready

to go again.

Electronic instruments and highspeed aerial cameras in the Firebee and Cougar drones record some details of each ship's missile-firing operations.

In the six years since 1957, when Roosevelt Roads began missile evaluation work, the station has assumed an ever-increasing importance in the Navy's missile program.

—Bill Missett, JO2, usn.



CHUTE saves drone and copter returns it to NAS, Roosevelt Roads,



HOMING PIGEON - Drone Cougar returns to NAS after completing mission at sea with missile-firing ships.







SHIPPING OUT-Retiring Navy officers are rowed ashore after (Rt.) ceremony on board USS Salisbury Sound (AV 13).

'Coxswain, Proceed Handsomely'

PAGEANTRY, pomp, bugles, and banners. These marked the pace-setting ceremony recently conducted aboard uss Salisbury Sound (AV 13) at Naval Air Station, Whidbey Island, Wash., to honor six senior Navymen on their retirement from active service.

Most notable feature of the ceremony was the departure of the retirees—officers representing 138 years of naval service — from Salisbury Sound aboard an "Old Navy" pulling boat. This once customary manner of honoring retiring naval personnel is today rare, the ceremony at NAS Whidbey Island being the only case known during recent years in which it has been observed.

Rear Admiral William S. Guest, usn, Commandant 13th Naval District who serves also as COMFAIR Whidbey Island, felt that the unusual retirement ceremony would serve to express the Navy's appreciation for the many years of faithful and honorable service the retirees have devoted to their country. With a small amount of extra effort it was possible to create a ceremony of color and significance.

"Such ceremonies serve another important purpose in reassuring the rest of us that our service, and the work left yet to do, have meaning, purpose and dignity and are worthy of our greatest efforts," Com 13 said.

The main ceremony was conducted aboard *Salisbury Sound*, and inspection of the Guard of Honor was conducted on the adjacent pier. The retiring officers were escorted to their

position on the pier by the NAS Whidbey Island Drum and Bugle Corps, passing through an avenue of thirty guidons held at the salute. The guidons represented all naval activities in the 13th Naval District. After inspecting the massed platoons of Navymen, the retirees reviewed a ceremonial drill presentation by the prize-winning NAS Whidbey Island drill team.

The honored officers were CAPT Thomas Robinson, CAPT Wallace M. Brown, CDR Francis C. Rutherford, CDR Arthur S. Linder, CDR Reid E. Coble, and LCDR Edward J. Nugent.

State flags figured prominently in the shipboard ceremony. As each officer's career was reviewed, the flag of his home state and his wife's

STATE FLAGS of retirees and their wives are paraded. (Rt.) One of the six retiring officers is piped aboard.





home state moved to a central point, symbolizing that the roots of national power extend deep into the states that make up the United States.

Each retiring officer spoke briefly to the assembled guests, expressing his feelings on the completion of his

active service career.

To conclude the solemn ceremony, the retirees were individually "piped over the side" and took their place in the pulling boat while the 13th Naval District Band played "Auld Lang Syne." When all were in the boat, CAPT Durham ordered, "Coxswain, proceed handsomely. Make the seaplane base landing and discharge your passengers."

As the boat departed, a benediction was given aboard Salisbury Sound, bringing to a close nearly a century and a half of dedicated ac-

tive naval service.

—Dick Benjamin, JO2, USN

Frigate Belknap Launched

The 7900-ton guided missile frigate Belknap (DLG 26) was launched recently in Maine. She is the second

ship to bear the name.

Belknap is 547 feet long and has a 54-foot, nine-inch beam. She is similar to uss Leahy (DLG 16), Harry E. Yarnell (DLG 17) and Worden (DLG 18) except the missiles aft on the earlier ships were replaced in Belknap by a gun, pointing up its continuing role in the nucleonic, electronic Navy.

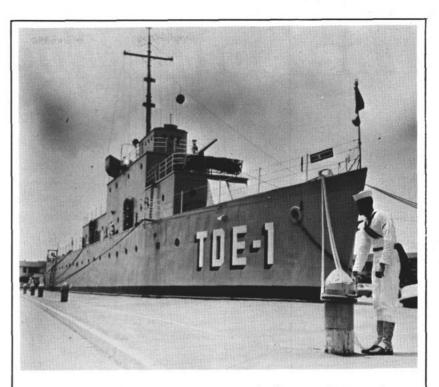
Belknap will carry a dual Terrier-Asroc missile launcher forward, a dual 5-inch/54-caliber gun aft and two conventional 3-inch/50-caliber guns and torpedo tubes amidship.

She will also be equipped with a helicopter landing platform and will carry modern search equipment and gear for detecting air and under-

water targets.

The ship is named for RADM George E. Belknap, usn, who distinguished himself during the Civil War, led an expedition against Formosa and did important survey work in the Pacific. The first *Belknap* (DD 225) was also named in his honor.

The ship's name also honors the late RADM Reginald Rowan Belknap, USN, President Theodore Roosevelt's naval aide who later coordinated preparations for the North Seamine barrage and commanded Mine Squadron One in World War I. He was awarded the Distinguished Service Medal for this duty.



700,000 Navymen Have Sailed in USS Recruit

There's a ship in San Diego that undertakes preparations daily in order to go to sea, but she's never made it. It doesn't seem likely she will either, for she's anchored solidly in concrete. In spite of her handicap, however, she is an important part of the Fleet.

She is uss Recruit (TDE 1) which in July observed her 14th year of training young Navymen

in the ways of life at sea.

Recruit, so named because of her boot camp crew, is the only land-locked "commissioned" ship in the Navy, and is equipped to acquaint future Navymen in the use of sound-powered phones, line handling, and fundamentals of shipboard drills and procedures.

"Commissioned" in July 1949, she is built to scale, roughly twothirds the size of a destroyer escort.

By 0800 every morning (except Sunday) the ship is fully manned and the crew stands at attention as the colors are raised on the flag-staff. A short time later, with all hands at their stations, the ship is made ready for sea. The lines may not be cast off as smoothly as those handled by a seasoned crew, and the orders may not be repeated with the crisp, clear confidence shown by rated petty officers, but Recruit does—in theory at least—

head for the open sea. While "at sea" the youngsters are rotated in their tasks to familiarize them with all facets of shipboard activity.

When it's time to return to port, the procedure is reversed: The lines must be cast at exactly the right time and in the right order when the ship is secured to her moorings. This sequence is repeated no less than 16 times for every Navyman in recruit training—and the Naval Training Center in San Diego trains over 50,000 recruits yearly.

Primarily Recruit exists to give recruits first hand knowledge in the fundamentals of seamanship. Standard deck gear found on all vessels is also found on the decks of Recruit.

On the main deck forward is a three-incher, while two K guns are located astern.

There are lifelines, an accommodation ladder, quarter deck and bridge. There are signal halyards, searchlights, engine order telegraph and wheel; the only thing keeping her from sailing out of her concrete channel is the lack of engines and screws.

In the short span that *Recruit* has been in existence, she has trained enough sailors to fill the ranks of the Navy-some 700,000 men.

The Battle That Turned

ATITUDE 28° 14', Longitude 177° 24'. This is Midway, a dot in the vast Pacific. Less than three square miles in size, it nevertheless holds an important spot in history.

Little is known of Midway Atoll from the time it emerged above the Pacific, as a result of volcanic action, until the time of its discovery by Captain N. C. Brooks, sailing the Hawaiian ship *Gambia* in 1859.

In 1867, Midway (there are two main islands, Sand and Eastern, making up the atoll), was formally proclaimed a United States possession when Navy Captain William Reynolds visited the islands in uss Lackawanna. During the remainder of the nineteenth century, about the only visitors to Midway were shipwrecked mariners who found themselves on a barren waste of sand and coral.

The first permanent settlement on the island was the establishment of a relay station in 1902 by the Pacific Commercial Cable Company. In 1903 it became the U. S. Navy's task to look after this tiny possession, and for the next 37 years a small Marine garrison was kept on the island.

It wasn't until war clouds began to hover over the Pacific that a concentrated effort was made to build this island into an operating base. It became a part of our perimeter defense.

Midway's tiny community grew in 1930 when a commercial air line made this island, midway across the Pacific, a fuel and rest stop.

The beauty of the island was



ON THE ISLAND — Plaque is dedicated to those who lost their lives during the Battle of Midway.

greatly enhanced through the efforts of the air line and the cable company. Trees, flowers, grass and topsoil (for nothing would grow in the coral sand except scaveola bush) were painstakingly hauled from Hawaii and California to landscape the island as we know it today.

The fortifications and related facilities were built in 1940-41 by the Navy.

THERE WAS little in its recorded past to suggest that Midway would provide the stage for one of

the most significant dramas in the history of naval warfare. Yet, in 1942, tremendous forces converged a few hundred miles to the Northeast.

After their highly successful attack on Pearl Harbor, the Japanese Fleet steamed through the Western Pacific and Indian Ocean. At Midway they hoped to destroy what remained of the U. S. Fleet and occupy the atoll as an advanced base.

There was considerable controversy among high officials of the Japanese Navy as to the feasibility or necessity of the operation. However, the grand strategy was decreed – Midway must fall.

Fortunately, superior intelligence techniques gave Admiral Nimitz the warning he needed to prepare for this most crucial of battles of WW II. On 2 May 1942, the Admiral and members of his staff flew to Midway to discuss the situation with Navy and Marine Corps commanders on the Island. The next few weeks saw a build-up of anti-aircraft guns, dive bombers, fighters, tanks and infantry forces. Midway was to be ready to defend itself.

The planned Japanese conquest of Midway was supposed to follow the capture of another objective in their victorious sweep through the Southwestern Pacific. This was Port Moresby, New Guinea, the gateway to Australia.

Port Moresby was saved in early May 1942 in the Battle of the Coral Sea. Heavily damaged in that battle, the aircraft carrier uss *Yorktown*

HOT SPOT-Heavy anti-aircraft fire greets Japanese planes attacking Pacific Fleet forces off Midway in June '42.



the Tide

(CV 5) proceeded to Pearl Harbor where she underwent emergency repairs. She was to fight again.

ADMIRAL NIMITZ ordered all the seapower he could gather to set course for Midway on 28 May, there to await the battle and invasion attempt counterintelligence had primed him to expect. Sailing from Pearl Harbor were the aircraft carriers Enterprise (CV 6), Hornet (CV 8), eight cruisers, 14 destroyers, and two oilers. The destination was Point Luck, 350 miles northeast of Midway to await the unsuspecting Japanese.

The Japanese armada, consisting of over 100 ships and 685 aircraft, was underway on 29 May 1942. Included in this formidable fleet were four aircraft carriers, 11 battleships, 70 destroyers, 15 submarines, 18 oilers and 40 miscellaneous vessels. The super-battleship *Yamato*, carried the Japanese Commander in Chief, Admiral Yamamoto. His task forces were headed by seven Vice Admirals and eleven Rear Admirals. Under their command were tens of thousands of men. Their objective—Midway Island.

On 30 May, Yorktown — accompanied by two heavy cruisers and six destroyers—put to sea to rendezvous with the *Enterprise* and *Hornet* and supporting ships already in the vicinity.

Confidently the Japanese armada sailed toward Midway while, secretly, the much smaller U.S. Fleet steamed in waiting northeast of the

DECISIVE battle was won at Midway.





NAMESAKE—Well known attack aircraft carrier USS Midway (CVA 41) carries name of the important victory as she cruises with Pacific Fleet today.

island. History was about to record one of its finest hours.

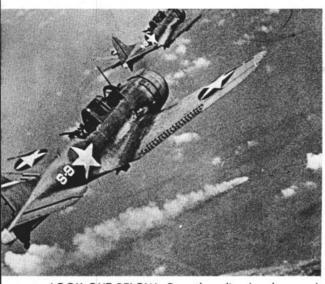
On the morning of 4 June, while Midway - based patrol planes were feverishly searching out the main enemy carrier striking forces, the Japanese carriers launched their

attack waves against the island.

After inflicting heavy damage, the senior Japanese strike leader recommended that a second attack was needed to soften the island for the landing force. By a fateful decision, the Japanese admiral ordered the carriers to change schedules. Air-

IN MEMORIAM— Honor guard marches during Battle of Midway ceremony.







LOOK OUT BELOW—Dauntless dive bombers make run on enemy ships. Rt: Disabled Avenger returns to Midway.



craft armament held in readiness to attack the American carrier striking force, should it be detected, was changed for a second strike against Midway. Returning aircraft from the first strike were recovered for refueling and rearming.

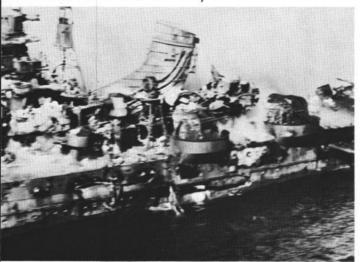
It was at this moment that the American aircraft pressed home the attack. Leading the attack were torpedo planes from the carriers Enterprise and Hornet. The enemy put up a murderous anti-aircraft barrage which was aided by fighters launched to repel the attackers. Of 41 U.S. torpedo planes, 35 were lost in this almost suicidal attack. None of the torpedoes scored a hit, but it was through the gallantry of these men in pressing home this low-level attack that our high flying dive bombers were able to commence their attack against the enemy carriers comparatively unmolested.

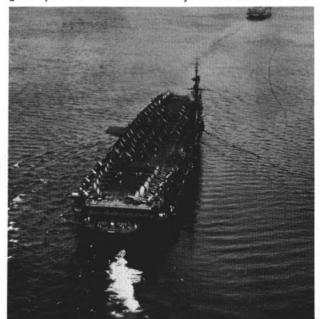
In the space of two minutes the attackers were able to score mortal blows against three enemy carriers. Before the battle was over, the enemy was to lose a fourth carrier to American air action, while the Americans suffered the loss of the carrier *Yorktown*, the prize the Japanese missed at Coral Sea.

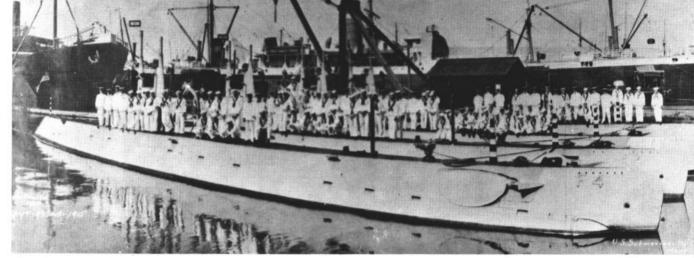
With the loss of four major carriers and their aircraft, Admiral Yamamoto withdrew what was left of his fleet. The invasion was abandoned and a hard-hit but victorious U. S. Fleet remained in action. The tide had turned.

It is a tradition that Americans now serving on the island of Midway annually commemorate the deeds of the brave men who gave so much to their country at that crucial moment in history.

FLAG IS RAISED as enemy attacks island. Below: Damaged Japanese cruiser and Midway before modernization.







CREWS LINE decks of the submarine USS F4 and her sister ships moored to pier at Honolulu, Hawaii, in 1914.

USS F4 Found Final Resting Place at Pearl

Official Navy records listed the submarines Narwhal, Dolphin, Tautog, Cachelot and Cuttlefish as present on the day Pearl Harbor was attacked. However, another submarine—uss F4—was also there.

True, no lookout reports emanated from F4 and she fired no shots on 7 December, but she was there.

Long since stricken from the records, F4 has reposed in Pearl Harbor since 1915 and now lies on a heading of 43.5°T, 40 feet off the Submarine Base berth Sierra 14.

F4 began her naval career on 6 Jan 1912 when she was christened and launched at Seattle. Shortly after commissioning in May of 1913 she suffered a severe battery explosion and in August 1914 was towed by the armored cruisers uss South Dakota (ACR 9) and West Virginia (ACR 5) to Pearl Harbor for repairs. The subs F1 and F3 had already made the same trip under tow by the same two ships.

By December 1914, F4 had completed all repairs and after test runs commenced normal operations. However, on 25 Mar 1915, F4 failed to return to base following a routine training mission off Honolulu Harbor and was presumed to be sunk off the harbor entrance where she had been conducting diving operations that day. The commanding officer, LT A. L. Ede, and a crew, of 20 men were lost aboard.

Efforts were made to locate the missing ship and save the crew, however, to no avail. The ship was finally located a mile and a half from the harbor and lying in 305 feet of water.

Salvage in 1915, however, pre-

sented serious problems. The number of deep-sea divers was few and escape and salvage equipment especially tailored for submarines did not exist at that time. By 1 Apr 1915, a party of expert deep-sea divers, Gunner G. D. Stillson and Gunners Mates Stephen Drellishak, Frank Crilley, Frederick Neilson and William Loughman had assembled in Pearl Harbor.

With them came a recompression tank and additional lengths of hose, for although a few of the experts had made dives to 280 feet, no one had passed 300 feet. They were also accompanied by Passed Asst. Surg. G. R. W. French, USN, who had been associated with these divers during their record-breaking descents to 280 feet.

The divers went to work immediately, diving in turn, to assist in

ON LINES — This is how USS F4 looked in 1915. Today, she rests on bottom of bay at Pearl Harbor.

fastening cables around the submarine so that she might be lifted from the bottom and moved shoreward. It was a tedious job, with a minimum of three hours spent to get 20 minutes of diver time on the bottom.

During one dive Loughman became fouled in the hoisting cables at a depth of 275 feet. He was eventually rescued by Crilley after having been subjected to this abnormal pressure for four hours. Loughman spent the next nine hours "soaking" in the recompression chamber. The forethought in bringing the chamber paid off.

Unfortunately, when F4 had been raised to within 50 feet of the surface, a sudden storm thwarted the salvage effort and a new approach had to be taken. Six specially designed pontoons were manufactured at Mare Island and brought to Honolulu by uss Maryland. The salvage job began again, and on August 29th the submarine was finally raised and brought to a temporary rest in a Pearl Harbor drydock where her silent crew was removed.

Later F4 was towed to a back water adjacent to the Submarine Base and grounded in the shallow

In 1940, with the construction of new piers at the Submarine Base, the problem of F4 arose again. The final solution was to bring a large dredge, scoop a trench alongside and roll the boat over into the trench. This was done and there today remains uss F4, which—together with uss Arizona and partially submerged uss Utah—lies in its final resting place in the quiet waters of Pearl Harbor.

-John F. Riley, CDR, USN.



SUNNY SOUTH - Illinois Reservists of VF 725 tend to their Furies at Roosevelt Roads, P. R., during training.

Operation Springboard

FIGHTER SQUADRON 725, which calls NAS Glenview, Ill., "home," became the first Naval Air Reserve jet squadron to be deployed outside the continental United States for active duty for training when it began its two weeks' annual training duty at USNS Roosevelt Roads not long ago.

The Weekend Warriors, originally scheduled to train at NAS Cecil Field, Fla., were ordered to take part in the Atlantic Fleet's *Operation Springboard*, an annual competitive exercise (COMPEX) involving ships

and naval aircraft in Fleet exercises.

Once the decision had been made to deploy the Reservists for Spring-board, key squadron personnel were assigned the job of planning the movement to Puerto Rico. Navigation routes and refueling stops were figured, discussed and refigured. Airlift requirements for ground personnel, spare parts, and other squadron gear were determined. The jets were scheduled for refueling stops at four different points between Glenview and Homestead AFB, Fla., so that

no single base would be overloaded beyond its manpower and refueling capacity.

Thirty-eight pilots and line officers and 65 enlisted Reservists participated in the training. They flew the AF-1E Fury.

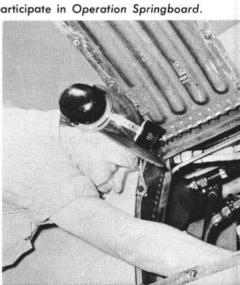
A briefing was held for all pilots at Homestead on the second morning out of Glenview. A final refueling stop was made at Guantanamo Bay before the jets pointed for Roosevelt Roads.

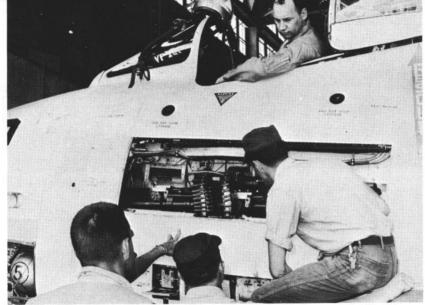
The Reservists' role in Operation

FIRST TIME - Naval Air Reservemen joined Fleet outside United States to participate in Operation Springboard.









WORK-Reserve jet gets going over while on deployment in Caribbean.

Springboard was primarily one of support. The jets provided targets for the radar trackers on board ship, who were being graded on how well they tracked the aircraft at various altitudes.

VF-725 flew twice as many hops as requested originally. Runs were made individually or in sections, at various speeds, and at altitudes ranging from 30,000 feet down to the deck. The Reservists also got in some high altitude GCI and vectoring work with fighter teams and a bogey.

Syllabus training was worked in around Springboard flights whenever convenient. The Reservists also ran their own COMPEX - in bombing and rocketry-within the squadron. Some Reservists also participated in a "maximum effort exercise" conducted by the Puerto Rican Air National Guard.

All in all, VF-725 flew 595 hours on the cruise, including the fly away and fly back.

During the fighter squadron's stay at Roosevelt Roads, Utility Squadron 8 acted as host squadron, serving as liaison between the jets and the ships operating in Springboard.

lets were kept in operating order by members of Naval Air Reserve Maintenance Unit (NARMU) 725 and active duty enlisted personnel from Glenview. VU-8 had originally reserved more than half of Hangar 200 for VF-725's "hangar queens"aircraft in need of repairs or maintenance-but at no time did disabled planes occupy more than 25 per cent of the space reserved for them.

The Reserve squadron also made use of a "flight following." A C-54, carrying maintenance personnel, met the jets at Homestead, prepared to service any squadron aircraft that might be griped down at the base. The idea paid off, as the maintenance crew solved a couple of problems for Roosevelt Roads-bound jets.

The overseas deployment of VF. 725 served as a morale booster to squadron personnel, and it proved once more to Fleet units the readiness of the Naval Air Reserve.



to take off to participate in the Atlantic Fleet's training exercise.

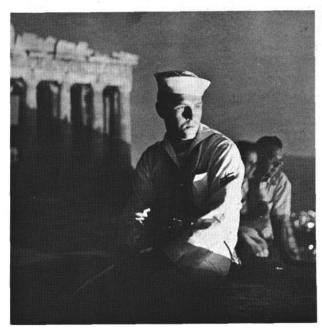


WEEKEND WARRIORS see the sights, and put their know-how to practical use.









TOP SIDE - Sixth Fleet sailor enjoys view from Acropolis (rt.) while others view ruins of the Parthenon.



PALACE GUARD was colorful subject for photographers. Below: Navymen admire ruins of ancient Greek temple.



Birthplace of Democracy

VISITING ATHENS, Greece, and not seeing the Acropolis can be compared to visiting Philadelphia without seeing Independence Hall. Independence Hall and the Liberty Bell symbolize the foundation of America, while the Acropolis is a living monument to the Golden Age of Greece.

Sixth Fleet Navymen and Marines, touring Athens, usually begin at the ages-old architectural masterpieces atop the plateau of the Acropolis which overlooks the modern city. These buildings, erected hundreds of years before the birth of Christ, offer the modern tourist an insight into the spirit of the architects, philosophers, dramatists, artists and politicians who lived in Greece during her Golden Age.

Today, the Parthenon (most famous of the Acropolis' ancient structures), the Propylaea, the Temple of Athena Victory, the Erechtheum and other monuments are swarming with tourists, amateur photographers, servicemen and students, curious about the meaning of these ancient pillared and marble-laden buildings, and struck by their great beauty.

Recently, a typical organized tour was taken by Navymen and Marines of Amphibious Squadron 12, the Mediterranean Amphibious Striking Force. First they visited the Acropolis, then drove in chartered buses

through the city while tour guides pointed out such local sights as the Temple of Zeus, the statue of Lord Byron, the Tomb of the Unknown Soldier and the Royal Palace.

They stopped for photos of the Olympic Stadium (built of marble as a replica of the ancient stadium at Olympia), then returned to the Royal Palace for the hourly changing of the Evzone Palace Guard.

Dressed in Hellenic uniforms and carrying bayoneted rifles, the guards march in single file toward the man on watch. His relief steps briskly from the file, salutes, and assumes the post as the off-going guard fills the space in ranks. Completing the ceremony, the squad crosses the street and returns to the barracks. Guards must be at least six feet tall and are hand-picked from the Greek Army.

After lunch, the servicemen rode to Daphni and visited a 900-year old Greek Orthodox church. Inside the church are huge Byzantine mosaics, the most impressive of which is a monumental face of Christ on the ceiling of the dome.

The Sixth Fleet encourages its men to participate in such tours to bring about a better understanding of history and, what may be more important, an understanding of the European people.

-Michael J. Bono, JO3, USN.

LETTERS TO THE EDITOR

Command At Sea Eligibility

SIB: Article C-1316 of the BuPers Manual states that an LDO shall be eligible to succeed to command when he has a letter from a commanding officer authorizing him to perform all deck duties afloat.

As an LDO in the 600 series, I don't have a letter for this. I have letters of qualification as OOD and CDO and have served one year as operations officer in an AO.

All the department heads on board were LDOs, but no one had a letter authorizing him to perform all deck duties afloat. What is our status as to succession to command on board ship and in boats?—R. J. L., LTJG, USN.

• A limited duty officer can succeed to command at sea only if he is designated in writing to perform all deck duties afloat or, as explained in Article C-1316 of the "BuPers Manual," is ordered to CO or XO duty afloat by BuPers.

Qualification as an Officer of the Deck or Command Duty Officer does not, in itself, certify eligibility to succeed to command at sea.

Since there apparently was no specific designation in your case, neither you nor the other LDOs are eligible to succeed to command at sea, either under authority of the "BuPers Manual" or Article 1331 of Navy Regulations (Authority in a Boat).—Ed.

Dual Employment for CWO

Sir: I enlisted in the Navy in November 1933. After 20 years of service I went into the Fleet Reserve. My permanent rating upon transfer to the Fleet Reserve was chief aviation ordnanceman, but I served under temporary appointment as a warrant officer and chief warrant officer from 15 Jul 1944 to 31 Jan 1946, and from 1 Feb to 15 Oct 1946, respectively.

At present I am a Civil Service employee.

Later this year, upon completion of 30 years' total service (20 active; 10 Fleet Reserve), I will be placed on the Retired List. Will it be as a chief warrant officer? If so, will I be permitted to retain my present position with Civil Service without jeopardizing my retired pay?—C. R. N., AOC, USN (Ret.).

When you retire from the Fleet Reserve you will be advanced on the Retired List to the grade of chief warrant officer, W-2, if the Secretary of the Navy determines your service in the chief warrant grade was satisfactory.

Under existing laws, as interpreted by

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D.C.

the Court of Claims and the Comptroller General, you will not be subject to either the Dual Employment Act or the Dual Compensation Act, even though you may, upon retirement, be advanced to a commissioned warrant grade.—Ed.

Chevrons Point Up, Down

SIR: Have you ever wondered why the chevrons on Navy and Air Force uniforms point down, while on Army and Marine Corps uniforms they point up? I've been wondering about this rather obvious uniform difference for some time—and have yet to find a meaningful explanation. — M. D. C., ABF2, USN.

 We've found nothing in the historical records of military uniforms that indicates why chevrons point down when used to designate Navy and Air Force grades, and up for the Army and Marine Corps.

The Laws of Heraldry, according to the Naval Uniform Board, indicate that chevrons worn above the elbow point down. This might be considered one reason for the manner of wearing Navy and Air Force chevrons, but it certainly doesn't apply to Army and Marine Corps stripes.

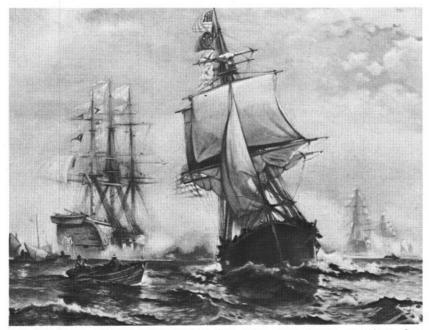
Here's some historical background on the subject. Prior to 1847 noncommissioned officer rank was indicated on American uniforms by varieties of epaulettes, number and arrangement of buttons on the sleeve, and richness of braid on the coat. In 1847, the Army adopted point-up*chevrons as indicators of noncommissioned rank. These chevrons were changed to point-down in 1851, and that prevailed in the Army until 1903 when the point-up chevron was readopted. The Marine Corps adopted chevrons to denote rank on the uniforms of noncommissioned officers in 1859. At that time the point-up chevron, still worn today, was prescribed. The chevron, as part of the Navy enlisted rating badge, first appeared in 1886. It was a point-down chevron and has remained so ever since. The pointdown chevron worn by the Air Force was adopted after that service became independent in 1947.

As displayed on coats of arms, the chevron is usually depicted point-up. In heraldic language, the chevron is described as "rather more than the lower half of a Saltire," the Saltire being an "X" configuration often known as a Saint Andrew's Cross,

The dictionary defines a chevron as "a distinguishing mark to indicate rank or service, consisting usually of stripes meeting at an angle on the coat or shirt sleeve." You'll note it doesn't specify the direction of the point.—Ed.



BIG DIPPER—An SH-3A Sea King helicopter of HS-10, operating from Ream Field, Imperial Beach, Calif., sets down in waters of San Diego Bay.



THE FRIGATE Ranger, commanded by John Paul Jones, receives first salute to the American flag, in Quiberon Bay in 1778, from a French admiral. The painting is a prized fixture in USS Ranger (CVA 61).

Requesting Permission to Go Ashore

Sin: A discussion has come up on my ship concerning the procedure an enlisted man should use when presenting himself to the Officer of the Deck while departing on leave or liberty or returning.

The references I've seen are conflicting. Navy Regulations, Art. 1017, states you shall report your authority for leaving the ship to the OOD. The Blue-jacket's Manual says you request permission to leave the ship, and report your return on board.

Naval Orientation indicates an officer reports to the OOD that he has permission to leave the ship, and reports his return on board, but it does not mention anything about enlisted men. — J. J., MMC, USN.

• Both the "Bluejacket's Manual" and "Basic Military Requirements" (Nav-Pers 10054-A) state that enlisted personnel will, when departing their own ship, "request permission to leave the ship," and, upon returning, "report their return aboard" to the OOD.

Art. 1017 of "Navy Regs" instructs the OOD to require all persons leaving or returning to the ship to report to him or his representative, and, on leaving the ship, "they shall report authority to do so."

The practice in leaving one's ship and reporting back aboard varies somewhat from one command to another. The usual practice is for enlisted men to "request permission to go ashore" as described in the references above.

The OOD may have a liberty check list to make sure only authorized men leave the ship, or he may accept the fact they have such authorization when they request permission to leave. Or, the OOD may require proof, such as a liberty card.

The OOD is the final judge regarding authority to leave ship. Therefore, he must give permission for personnel to leave. Requesting permission to leave, it follows, is completely appropriate. In reporting back aboard the normal procedure for enlisted men is to "request permission to come aboard."—ED.

About that Photo . . .

SIR: On page 21 of the May 1963 ALL Hands a caption reads in part "Representatives of three generations and four classes of destroyers." ALL Hands apparently made an error—because the outboard ship is uss Weiss (APD 135).

I know other APD sailors will join me in wanting to set the record straight since we are just as proud of our ships as destroyermen are of destroyers.—
J. E. R., YN1, USN.

• You are right for, although APD 135 was originally scheduled to be DE 719, she was converted to a high speed transport during construction.—ED.

Just a Small Miracle

Sir: Re my letter in the May issue: So I goofed! Make it 2500 gallons of oil an hour pumped to another destroyer by uss *Forrest Sherman* (DD 931) vice 25,000. We're good, but . . . -T. F. Fallon, LT, usn.

• You slipped under the wire, Lieutenant. Not one little protest from the whole Fleet-yet.-Ed.

Parsons Belongs to Hull Class

SIR: As destroyermen, we of uss *Parsons* (DD 949) thoroughly enjoyed the Destroyer issue of ALL Hands. We were particularly pleased that you chose a picture of *Parsons* for your centerspread. Unfortunately, the picture you selected was an old one, taken on sea trials before commissioning, with the Ensign flying aft and the builder's flag flying at the yardarm. An up-to-date photo would show *Parsons* at sea, properly dressed as a Navy ship.

One small correction to the description accompanying the picture: Parsons is a Hull (DD 945) class, not a Forrest Sherman class, destroyer. The most obvious difference in the two classes is the location of the MK 68 and MK 56 directors. — H.O. Anson, Jr., CDR, USN.

• Thank you for your comments. We're glad you enjoyed the magazine and are happy to point out Parsons as a commissioned ship of the line.

Although our reference material shows Parsons to be of the Forrest Sherman class, BuShips agrees with you. Parsons and Hull were a part of the same building program as Forrest Sherman, but owing to minor modifications to Hull and the ships that followed, another class was established within the same building program. Parsons is officially a Hull class ship. — ED.

Wave Gunnery Instructors

Sir: I would like to know if a Wave has ever been rated as a Gunner's Mate. Some of my shipmates claim two Waves had this rating. I say they had a specialist rating but were not actually Gunner's Mates.—J. T. M., GMG1, usn.

• Our editor in charge of detective work uncovered no evidence that Waves were rated as Gunner's Mates. However, during World War II, there were enlisted women who were in a Specialist, Gunnery (SpG) rating. As a rule, they served as instructors in aviation gunnery.

The Wave SpG rating was absorbed by the TD (Training Devices and Repairman) rating. Records indicate there were probably less than 10 Wave SpGs on active duty by March 1948.—ED.

Deep Freeze Football

Sir: I would like to invite your attention to a picture on page 46 of the June issue captioned "Pole to Palms." Ferhaps you would be interested to know that this shot is of a football game in progress at the Amundsen-Scott South Pole station. The amazing men of MCB-8 had asked me, as chaplain, to see if I could find them a football while at McMurdo Station on a trip. I couldn't, but meanwhile someone turned up a basketball.

The Seabees played their game on a field nearly 10,000 feet above sea level, in balmy Antarctic spring temperatures of minus fifty and lower. I found it a

trying task to walk 50 yards without tiring-because of the altitude, cold and wind-but these hearty Seabees not only engaged in a heavy construction program under conditions which stagger the imagination, but in their spare time they played football!-C. B. Young, LT, CHC USNR.

· As far as the Seabees are concerned, the difficult is easy, the impossible takes a little bit longer.-ED.

Again, Who's Senior?

SIR: I am presently attached to a Seabee Battalion, MCB-10, where one of our most controversial subjects is

rate precedence.

According to the Bureau of Naval Personnel Manual (Article C-2103), the Group V rate is senior to any Group VIII rate. The Seabee side of the story is that when any fleet-type rate, listed senior to the Group VIII rate, is serving with us, the fleet-type rate is junior in any matter concerning the military aspect of the Seabees.

We, the fleet-type sailors of MCB-10. would like to prove once and for all that we are senior in all respects in military matters.-G. R. T., YN2, usn.

 Both "Navy Regulations" and
"Bureau of Naval Personnel Manual" are unbending; neither publication makes any provisions for the realignment of normal military precedence in the situation you described.

A Group V rate is still senior.-Ed.

The Union Jack Up Forward

SIR: Recently a seaman asked me what the stars and the blue field of the Union Jack represented and why it was flown forward.

I was able to answer his first two questions but the third one stumped me. I looked through numerous naval books and asked quite a few people on board but neither the books nor the people I asked enlightened me any. Perhaps you can.-F. A. J., SM3, USN.

· As you apparently know, each star of the Union Jack represents a state although no one star represents any particular state. The blue field represents the union of the states.

Apparently we delved into the same books you consulted to find the answer to the third question for, although most sources mentioned the Union Jack, none actually gave a complete history.

The General Signal Book of the U.S. Navy in 1908 stated that "the Union Jack is a sign, in port of dress, and is to be worn in good weather hoisted on a staff shipped in the bows or on the head booms forward when colors are hoisted. It is not to be worn while coaling ship, when washed clothes are up, when sails are loosed to dry, nor on square-rigged ships when topgallants are not crossed."

It seems certain, however, that the jack was in use at a very early period



OPEN SEAS AHEAD—The Pearl Harbor-based submarine rescue vessel USS Greenlet (ASR 10) leaves her home port for a typical assignment.

in our Navy and was probably one of the customs taken over from the British Navy which has used a jack type flag since the early 17th century.

You probably haven't heard the last of this. Our researchers usually come up with an answer. On the rare occasions when they don't, our readers do.-ED.

Longest Voyage Home?

SIR: USNS Blatchford (T-AP 153), an MSTS troop transport, has just completed what may well be the longest voyage of any ship in history. (According to maritime usage, a voyage is a round trip from home port to home port, or from a CONUS port to one or more foreign ports and return to CONUS.)

As part of the United Nations Congo Sealift, Blatchford steamed 178,968 nautical miles on a single voyage. Dur-

Right Arm Rates

SIR: In the ALL HANDS article on right arm rates which appeared on page 24 of the March 1963 issue, I believe there was a mistake in your reply.

If my memory doesn't fail me, the Navy rating badges have been worn on the left sleeve since 2 Apr 1948, the date the postwar rating structure became effective, not 2 Apr 1949 as stated. - R. M. M., PNCS, usn.

· The wearing of rating badges on the left sleeve was authorized on 2 Apr 1948 as you say. However, a period of one year was allowed for the change.

The final date for the change was 2 Apr 1949. - Ed.

ing the two and one-half year voyage, we transported 36,809 Moroccan, Indian, Indonesian, Malayan and Pakistani troops.

Can any ship-Navy or otherwisebeat this record for the longest voyage? -David E. Cook, LCDR, USNR.

 Your challenge seems to have the makings of a record to shoot at. If your "longest" falls, you might have another record . . . how many U.S. Navy ships have carried 36,809 passengers on a single voyage?-ED.

Early Promotion for Ensigns?

SIR: Is it not feasible for an ENS who has less than 18 months in grade to be promoted to LTJG? I've never heard of early promotion for outstanding ensigns. but might suggest that such a procedure would enhance morale-and increase the junior officer retention rate.-T. S., ENS,

· Early promotion for outstanding ensigns has been suggested and considered many times over the years. However, a fair, practicable method of determining which ensigns are "outstanding" is yet to be devised.

How can you fairly measure the performance of all ensigns against one another? You might try selection boards, as is done for promotion of officers in the grades of LTJG and above. However, selection boards wouldn't work, it's been determined in the case of ensigns, simply because ensigns do not have sufficient fitness report histories or other records on which the board members could evaluate performance.

Therefore, in answer to your question -yes, it is not feasible.-ED.



TUGGING AWAY—USS Independence (CVA 62) gets assist from tugs in getting underway at Norfolk, Va. She has since joined Sixth Fleet.

On Firefighting

SIR: Some months ago you published a one-page photo story on the Fire Fighting School at Norfolk, Va.

Describing the action in one of the pictures, you said: "Foam is used to cool a simulated nuclear weapon surrounded by fire."

It has been my impression that water, rather than foam, should be used on a weapon. Foam would become a baked-on layer of insulating material, retaining the heat in the interior of the weapon until it "cooked off."

In any case, fire-fighting instructions at my disposal are not clear as to the preferred method, so I have nothing official to back me up.—J. W., LT, usn.

• The photo caption information to which you refer (Fire Fighting School, ALL Hands, December 1962) is slightly misleading, though essentially correct. We should have made it clear that the weapon pictured was not actually on

fire; it was surrounded by flame, but was still cool. The foam extinguisher was spread over the weapon to keep it cool.

Had the weapon been engulfed in flames, the following procedure would applu: Leave it alone.

OpNav Inst. 8110.16B notes: "In cases where the weapon is not in the fire, the foam used for extinguishing fuel flames can be spread over the weapon to protect it from radiated heat and from flames. If the weapon is engulfed in flames, do not attempt fire fighting."

The Naval Damage Control Training Center at Philadelphia, and the Damage Control School at Treasure Island, both follow this procedure. No attempt, they say, should be made to cool a weapon engulfed in flames.

If a weapon in the vicinity of a fire is still cool, foam or waterfog may be used to keep it that way.—Ed.

Signing 'By Direction'

Sir.: I have a question regarding authority for signing official correspondence "by direction."

Could a commanding officer delegate such authority to E-8 and E-9 petty officers?

I know of no such practice, other than chiefs who sign certain pages of inactive Reservist service records. However, I might suggest that if authority to sign routine correspondence, such as requests for records, receipts, and certain pages of enlisted records, were delegated to active duty senior and master chiefs, the administrative workload of personnel officers would be relieved.—R. R. R., HMCM, USN.

The basic regulations which govern the signing of official correspondence are contained in "Navy Regulations," and the "BuPers Manual."

The appropriate "Navy Regs" article (1608) makes it clear that only 'sub-ordinate officers of the command, may be delegated authority to sign official correspondence.

The term subordinate officer, as defined by law (Title 10, U.S. Code, Section 5001), and in "Navy Regs" (Article 1301), includes commissioned and warrant officers. Enlisted personnel, regardless of pay grade, are not mentioned.

Article B-2305 of "BuPers Manual" requires that signatures on official documents be closely controlled and remain a responsibility of officer personnel. Further in the Manual, Articles C-5303 and C-5304 elaborate on Navy policy regarding signatures which affect personnel administration.

It boils down to this: Authorizing enlisted personnel of any pay grade to sign official correspondence "by direction" would be against the law.—ED.





The Makings of a Squadron

WHAT IS REQUIRED to keep the Navy's best all-weather antisubmarine warfare helicopter flying?

Designers, technicians and other experts worked for eight years to develop and build the SH-3A Sea King. Since coming into service, the Sea King has become a mainstay in the Navy's ASW arsenal, and another group of specialists has taken over.

The Sea King opened a new chapter in the book of antisubmarine warfare, but without the services of Navy cooks, hospital corpsmen and 22 other men, this helicopter couldn't get off the ground. All the terms describing Navy power would mean nothing if the men behind this mechanical complexity didn't do their job.

The squadron is the basic building block of Navy air power. A squadron such as Helicopter Antisubmarine Squadron Two (HS-2), based at Naval Auxiliary Air Station, Ream Field, Imperial Beach, Calif., includes about 300 officers and enlisted men. Each of these men is a specialist trained to perform an individual job. Each is a part of the over-all team that enables the squadron to carry out its mission.

The pilot is responsible for flying this 17,000-pound "bird." He insures the safety of his aircrew and the safety of the record-setting turbocopter. To help him in this man-sized job is the copilot.

The first aircrewman operates the Sea King's sonar equipment. With the SH-3A's sonar gear lowered into the ocean, he uses the latest in echoranging equipment to detect the

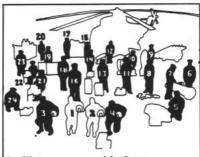
presence, distance and direction of submarines. The second aircrewman backs up the first and relieves him on the sonar. He is in training to become a topnotch first aircrewman.

Twenty of the team members remain on the ground. Aviators' equipment personnel, the plane captain, assistant plane captain, starter unit operator, operations man and materiel man are responsible for the pilot's equipment and the parts needed for maintenance and repair of the helicopter.

Other specialized services are handled by personnel from the electric, air-frames, ordnance, radio, sonar, power plants and quality control shops. Each shop is responsible for the operation of the equipment it specializes in. Together, the shop men can completely tear down and rebuild an SH-3A if necessary,

All of the members of the squadron mentioned so far either fly or work on the helicopter. But men from other offices, representing the First Lieutenant, information and education, disbursing, personnel, and administration, along with the commissarymen and corpsmen, take care of the needs of the men in the squadron.

— Kyle McGonigle, JO1, usn.



- 1. Pilot
- 2. Copilot
- 3. First Crewman
- 4. Second Crewman 15. Plane Captain
- 5. Aviators' Equipment
- 6. Power Plants
- 7. Quality Control 8. Electric
- 9. Air Frames 10. Ordnance
- 11. Radio
- 12. Asst. Plane Captain

- 13. Sonar
- 14. Information and Education
- 16. Corpsman 17. Starter Unit
- Operator 18. Cook
- 19. Operations 20. Material
- 21. Administration
- 22. Disbursing 23. First Lieutenant
- 24. Personnel



Language Is a Vital

THIS SUMMER, the various language schools and programs administered on an individual basis by the Army, Navy and Air Force, were transferred to the operational control of the new Defense Language Institute, headquartered in Washington, D. C.

On the surface, the shift appeared to be a minor administrative shuffle. However, it was a well-planned operation involving the language training of more than 100,000 students a year.

The formation of DLI was seen as the practical solution to an increasing number of problems in the field of language instruction for the armed forces.

The need for trained linguists from the military ranks has, over the years, grown rapidly. But, with each service running its own language program, it became more and more difficult to determine exactly what was being done in this field. As a result, it was extremely difficult, if not impossible, to make over-all decisions concerning the various types and levels of language training.

Last year it was decided that an entirely new concept of language training management was needed. The Army was assigned the task (by DOD) of pulling together a joint service program. A temporary planning group, with representatives from the Army, Navy and Air Force, was formed in Washington, D. C., to conduct a thorough study of the subject.

THE FOUR MAJOR areas of language training that had developed over the years were studied, including:

• Full time courses—This category covers full time foreign language courses at individual service

language schools, running from six months for western European languages to nine months or a year for others.

Largest establishment involved in full time instruction was the Army Language School at Monterey, which each year graduated more than 2000 students in 28 languages.

The Navy Language School in Washington, teaching eight different tongues, turned out about 200 graduates a year.

The Air Force's full time language students attended classes at Syracuse, Yale and Indiana universities under special contract arrangements. The three universities graduated about 1000 military language students each year.

All three services used facilities of the School of Language of the State Department's Foreign Service Institute, as well as commercial language schools. From these, another 1000 trainees were graduated each year.

• Part time language training — The second category involves language instruction given as part of some other training program (such as during unit training in special forces) or as a requirement of some particular job (such as a MAAG billet). Required part time instruction is given during or after normal duty hours, but in no case is the cost of the training borne by the student.

Such courses have run from 50 classroom hours to several hundred. It has been estimated that 15,000 armed forces students participate in required part time instruction each year.

• Part time voluntary study—In this category language study is conducted outside of normal duty hours

Tool for a Traveling Navyman

(see box p. 34). Voluntary language students are normally required to defray part of the costs. Approximately 50,000 men each year take part in after-hours lan-

guage study.

• English—About 25,000 servicemen from other nations study English in U. S. military language schools. (In addition, several thousand U. S. citizens with no prior English language training join the Army each year, and these men must be taught to speak and read English well enough to undergo basic military training.) The Air Force English Language School at Lackland AFB, Tex., is the major full-time English language training facility in the continental U. S.

After several months of study, the joint planning group decided that any changes in the over-all administration of language training should be drawn up with certain guidelines. The vital flow of trained linguists must not be interrupted by any new plan. All the services must be represented on the directing body. Individual service requirements for trained linguists will be passed on to the governing body for follow-through.

Under the plan, present facilities would be turned over to the governing body for control.

THE COVERNING BODY, as it turned out, was named the Defense Language Institute, and is now responsible for all foreign language instruction for U. S. military and naval personnel.

The only military language programs excluded from transfer to DLI were those conducted for cadets and midshipmen.

As established, DLI is a control

center with technical control over all language programs. It is responsible for running them as effectively-and economically-as possible.

Its technical control includes the authority to approve training methods, instructor qualifications, texts, materials, course content and objectives, standards for language aptitude, proficiency testing and scholastic credits.

The Army Language School at Monterey was renamed DLI, West Coast Branch. The Navy Language School was renamed DLI, East Coast Branch.

In addition to governing DLI East and DLI West, the Institute makes contract arrangements with commercial schools, and has assumed the Air Force's contract commitments with Yale, Indiana and Syracuse universities. It also exercises academic control of the Air Force English Language School at Lackland AFB.

AN EXAMPLE of part time language training required for certain Navymen can be found at Coronado, Calif. Here the UDT men of Sea-Air-Land Seal teams are trained in guerrilla and special warfare tactics, and are taught foreign languages which might become handy weapons in unfamiliar countries.

The Coronado part time language program (and others like it throughout the services) are not administered by DLI as such, but the Institute monitors the quality of courses offered, recommends improvements, and evaluates results.

The Defense Language Institute and its East Coast Branch are located at the old Naval Receiving Station in Washington, the site of the old Navy Language School. (ALL HANDS, August 1961).

The School's building will be renovated to provide more classrooms for the increased number of students expected for language training under DLI East. The DLI headquarters staff consists of 10 officers representing all the services, five senior civilian language advisors and 11 administrative personnel.

At present, DLI offers training in 30 different languages at its West Coast branch, and 10 at DLI East.

THE LANGUAGE INSTITUTE'S instructors are experts in their fields. DLI East, for example, has about 40 instructors who formerly taught at the Navy Language School. All are native born speakers of the language they teach.

Some faculty members are fluent in four or five languages and have had extensive experience as professors in foreign and American universities. They work hard at seeing that each student becomes thoroughly at ease in speaking, reading, writing and understanding the language he is studying.

Through its advanced methods, DLI is able to teach foreign languages in a relatively short time. The instructors also devote time and attention to the history, geography and customs of the countries concerned.

In case you're a future student, you'll be interested in the following:

- School hours at DLI East are from 0800 to 1200 and 1300 to 1400, Monday through Friday. The school day consists of four 50 minute periods in the morning and three 50-minute sessions in the afternoon. DLI West has a similar schedule.
 - Students have 30 hours of class-





room instruction each week. But, each student is required to spend from four to six hours of study outside of class for each lesson assigned. This means at least 20 hours of homework each week.

- Regular instruction stops for one week approximately every three months, and students are encouraged to take leave. These periods are provided to let the men get away from their studies so they can bring refreshed minds and renewed outlooks back to class with them. (The few who elect not to go home during the quarterly leave periods are required to report to school daily and remain there until 1220.)
- Some students have the opportunity to follow other interests during their leave periods. Aviators, for example, can use the vacation period to accrue flight time, participate in Link trainer flying and otherwise

catch up on flying requirements which cannot be squeezed in during full time language study.

• Diplomas are issued to DLI students who satisfactorily complete a full course of study. Credit considerations are recommended to civilian institutions for students who finish the course with a C (70) average or better.

Graduates who wish to apply their credits toward degrees can request that transcripts be sent to their colleges and universities. (DLI recommends that credit consideration be based on the length of the student's training.)

THE LENGTH of training for a DLI student is governed by the job in which he will use the language.

DLI students headed for attache

DLI students headed for attache billets receive extensive training, since they must be able to converse with college-educated people on subjects ranging from current events to technical military operations. And, they must be able to read the language, with the aid of a dictionary, well enough to understand the general content of military operations orders, plans, maps, news articles, military correspondence, short biographies, signs and directions.

Navymen selected for Security Group work receive language training on a lesser scale. Most Naval Security Group personnel need only to understand and speak the language as an aid in their work. DLI gears training to simple conversations, with emphasis on technical naval terminology.

F YOU ARE assigned work with MAAGs and missions you don't have to have the vocabulary of diplomats, but you must be able to converse on technical subjects, take notes, and generally help those with whom you work.

Navymen stationed in remote areas with MAAGs and missions must be able to instruct local people, few of whom are high school graduates. They must be familiar with local dialects, colloquialisms and slang, and must be able to read and prepare, with the aid of dictionaries, simple field operations orders, plans, estimates, maps and overlays, and read simple news articles and signs and directions.

Members of special warfare units, such as Special Forces and SEAL Teams, must be able to speak the language well enough to teach local personnel basic military tactics and techniques. Special Forces enlisted men are trained to "S-2 fluency" while Special Forces officers are trained to "S-3 fluency." A working knowledge of a second language is desirable and is encouraged in Special Forces personnel.

Do-It-Yourself Language Study

If you're interested in studying a foreign language on a voluntary, after-hours basis, you should note that the Defense Language Institute does not now provide instruction on an off-the-record basis. Only Navymen who are selected for specific billets requiring proficiency in a foreign language are enrolled by DLI.

However, the Bureau of Supplies and Accounts publication NavSandA 2002 lists language study material available on requisition, and the U.S. Armed Forces Institute (USAFI) has a do-it-yourself language program. USAFI maintains recordings of 30 different languages for the use of after-hours scholars. Also, DLI is developing courses for Refresher Training for those whose skills are rusty.

The Naval Correspondence Course Center does not include foreign languages in its course listings.

If you're an active duty officer who becomes proficient in a foreign language as a result of voluntary, spare time studies, BuPers Inst. 1520.83A requests that you forward a letter report to the Chief of Naval Personnel (Pers 1923). You should make a report each time you become proficient in a new language, reach a higher level of proficiency in any language, or become aware of a loss of proficiency. The language or dialect concerned should be listed, and an academic transcript should be submitted as an enclosure to your report, unless the new proficiency is gained outside of a formal course of study.



All DLI courses are drawn up with terms that "speak" the language of the service of the student well in mind. For example, Navymen picked for MAAG duty in Vietnam probably wouldn't be required to expound in Vietnamese on the nomenclature of an Air Force plane they've never seen. But, Air Force language students who will eventually be working with the aircraft in some other part of the world must be able to talk about it in the appropriate foreign tongue.

Foreign officers from many nations who must learn English before attending U.S. service schools must be able to speak, read and write well enough to undergo U.S. military training in officer schools ranging from basic courses through Command and Staff College levels.

The degree of English language training provided at Lackland AFB is likewise dependent on the needs of the individual student. Lesson materials accustom English students to various U. S. accents, slang, military abbreviations and terminology appropriate to the course.

WHAT ARE THE CHANCES that you, a Navyman, might be assigned to foreign language instruction under DLI?

First, the Navy must foresee a specific billet opening which requires language qualification. The Navy knows well in advance approximately how many men will be needed each year for specific assignments to MAAG, mission, attache, or special billets which require language qualification. Each year the Navy tells DLI how many Navymen will need language training, which courses they will have to be trained in, and when the training should commence.

DLI takes over from there, assigning trainees to the facility best able to provide the language training within the specified time. This means that any one Navy student is not necessarily assigned to the DLI school closest to his duty station at the time he receives orders to language training. The school, East, West, or contract, that can provide the proper instruction within the time schedule, is the school to which he goes.

Orders to language training are specific. Navy students are ordered to report directly to the commandant, DLI East, or West, as appropriate, for duty under instruction in a specific foreign language.

Washington-bound Navy students further report to the Commanding Officer, U. S. Naval Station, for administrative check-off, and those trained at DLI West report to the Superintendent of the U. S. Naval Postgraduate School.

Officers, both Regular and Reserve on active duty, are encouraged to apply for training under DLI. Officers assigned to MAAGs and missions normally receive orders to language training without application.

Officer applicants must agree toserve on active duty at least one year for each six months of instruction received, in addition to any obligated service incurred upon commissioning.

(If you're an interested officer, your letter of application, accompanied by a Language Qualification Form, NavPers 584, and Officer Preference and Personal Information Card, NavPers 2774, should be submitted to the Chief of Naval Personnel, Pers B-136. Normal requisition channels can be used to obtain the forms from the Naval Supply Centers at Norfolk, Va., and Oakland, Calif.)

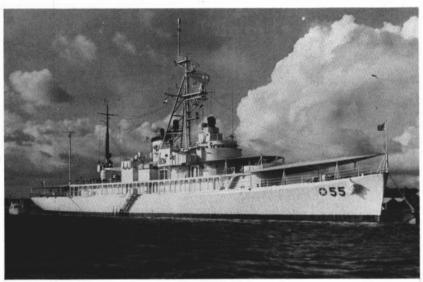
Enlisted men who serve with any Naval security group can submit applications for language training. Those selected for MAAG and mission duty or attache billets receive orders to language instruction without application. Otherwise, applications are not desired.

IN DLI'S FUTURE, things will be moving fast. Under DLI management:

- Plans now call for acquiring the services of skilled linguists who will be available for consultation world-wide.
- The possibility of adding new languages to the curriculum is constantly under study.
- Attache designates with dependents can make language training a family affair. Within the limits of authority and funds, provisions are being made for the training of wives of attaches in the language of the country of assignment. Other grown dependents of men in training at DLI East are also permitted to enroll in language courses on a space available basis.
- The quality of instruction for all students, regardless of service branch, is uniform.
- More emphasis is being placed on specialized mission language instruction. (Under DLI, there are enough students to split up classes and form special groups for instruction in a common mission.)
- More men can be trained to fill the increasing number of billets requiring language qualification. The number of language training opportunities for Navymen has nearly doubled for fiscal 1964. Last year, 360 Navymen began foreign language courses under Navy Language School procedure. This year, an estimated 690 Navymen will attend classes under DLI. (The officerenlisted ratio is about 40 per cent, 60 per cent, respectively.)

-Dan Kasperick, JO1, USN

* * * * TODAY'S NAVY * * * *



WHITE ONE—The seaplane tender USS Valcour (AVP 55) is on her 14th deployment in the Middle East. She relieved USS Duxbury Bay (AVP 38).

Unexpected Visit

A naval aviator who has never had a tour of carrier duty might wonder at times why the Navy ever bothered teaching him to land on one. If LTJG, J. C. Collins ever had such thoughts, he now knows why.

LT Collins is attached to Utility Squadron Five, Detachment Alfa a permanently shore-based outfit at Cubi Point in the Philippines.

He had not made a carrier landing nor engaged in mirror landing practice since he left VT-30 in the Training Command. His squadron tows targets and provides tracking services for the ships and aircraft of the Seventh Fleet.

One morning, however, LT Collins flew 75 miles out to sea from Cubi to

provide tow target services for uss Coral Sea (CVA 43).

While he was working with the carrier his plane's oil sump warning light came on indicating the engine might fail at any moment.

Coral Sea wasn't at flight quarters but she turned into the wind and her deck was respotted. LT Collins was given Signal Charlie in less than five minutes.

The lieutenant had never made a carrier landing in an Al-E (AD-5) type aircraft but he brought his plane aboard on the first pass.

His trouble was remedied by VA-152 on board the carrier and he was catapulted from the big ship. The next landing was at Cubi Point without incident.

New Bronstein Joins Fleet

uss Bronstein (DE 1037), a big, modern destroyer escort, has been commissioned in Charleston, S. C. The ship is 370 feet long, about 60 feet longer than the destroyer escorts of the past. Her armament system far surpasses that of older-type DEs.

Scheduled to join the Pacific Fleet, Bronstein will become a unit of Escort Division 32 based at San Diego. uss Charles Berry (DE 1035) and McMorris (DE 1036) are the other ships of CORTDIV 32.

Bronstein's armament includes Asroc (antisubmarine rocket) weapons system, Dash (drone antisubmarine helicopter), antisubmarine torpedoes, and a 3-inch/50 caliber dual purpose gun battery.

The vessel carries the most modern communications and electronics equipment to aid in carrying out her mission—screening convoys and destroying submarines.

She is the second U. S. Navy warship to be named in honor of LTJG Ben Richard Bronstein, a Navy doctor killed in World War II. The first *Bronstein* was transferred to the Uruguayan Navy in 1952. The new DE carries a crew of 13 officers and 180 enlisted men.

Oldest In-Service DD

uss *Nicholas* (DD 449), which claims to be the oldest in-service destroyer in the U. S. Navy, has just celebrated her 21st birthday.

During her active World War II career, *Nicholas* earned a Presidential Unit Citation for her part in rescuing survivors of *Helena* (CL 50) following the battle of Kula Gulf in July 1943.

She also took part in the New Guinea, Gilbert and Marshall Islands, Morotai and Leyte operations. During these campaigns, she sank two Japanese submarines.

Later she participated in the landings at Lingayen Gulf, Tarakan, Brunei Bay and at Okinawa.

When it was all over, as a fitting climax to her career, she was one of three destroyers chosen to escort uss *Missouri* (BB 63) into Tokyo Bay to accept the Japanese surrender.

In January 1947, Nicholas was

YESTERDAY'S NAVY



On 1 Oct 1943 the U. S. Naval Air Facility at Recife, Brazil, was established. On 6 Oct 1943 the Battle of Vella Lavella took place when three U. S. destroyers attacked nine Japanese destroyers evacuating troops. On 9 Oct 1944 a U. S. cruiser-destroyer force bombarded enemy coastal defense positions on Marcus Island. On 11 Oct 1942 the Battle of Cape Esperance commenced, continuing into 12 Oct. On 16 Oct 1942 a carrier task force under RADM G. D. Murray struck Japanese troops on Guadalcanal and seaplanes elsewhere in the Solomons.

placed out of commission, in reserve but she came out of retirement early in 1959 to enter the Pearl Harbor Naval Shipyard for a FRAM II face lifting.

Today, *Nicholas* is still out front operating with DESFLOT Five's Squadron 25.

Hancock in Far East

Though she's nearly 20 years old, uss Hancock (CVA 19) still gets around. At present, she's on a sixmonth deployment with the U. S. Seventh Fleet in the Far East.

Commissioned in April 1944, "Fighting Hanna" amassed an illustrious combat record in the Pacific as flagship of Admiral Halsey's Third Fleet during the liberation of the Philippines. She was awarded four battle stars and earned the Navy Unit Commendation for her outstanding fighting career with fast carrier striking forces throughout the Pacific in World War II as she helped carry the fight to Iwo Jima and to Japan itself.

Today she's still a versatile weapons system, thanks to occasional visits to shipyards where she is equipped with all the accessories needed for handling modern attack

and fighter aircraft.

During her present deployment, *Hancock* is visiting Hawaii, the Philippines, Hong Kong and Japan. While in the Philippines, she relieved uss *Ranger* (CVA 61) as flagship of Task Force 77.

Cruising in Boston

The years have been kind to uss Boston. Celebrating their ship's 20th anniversary last summer, Boston cruisermen agreed the old warhorse hasn't lost her kick. If anything, she's tougher today than during World War II, when she won 10 battle stars on the strength of standard shipboard guns. Now she fires missiles, too.

Originally commissioned a heavy cruiser (CA 69) in June 1943, Boston has undergone considerable face lifting operations over the past 20 years. She is now designated CAG 1—the first U. S. cruiser to attain a guided missile capability.

Boston's history is a story of the development of cruiser firepower. As a CA she was fitted with three triple 8-inch turrets and six dual-purpose 5-inch gun mounts, plus 40mm and 20mm antiaircraft batteries.

Using these guns in the Pacific



AGING WELL—The guided missile heavy cruiser USS Boston (CAG 1), shown underway in the Atlantic, has begun her 21st year of service.

during World War II, Boston screened carriers from enemy air attacks, and supported numerous Marine landings on enemy beachheads. Her many battle stars are in recognition of the firepower she provided during assaults on Kwajalein, Mafuro and Eniwetok; the raids against Truk, Ulithi, Woleai, Ponape, Yap, Palau and Satawan; the Hollandia operation and associated landings at Aitape, Humboldt Bay and Tanahmerah Bay; the Marianas operations, including the capture of Saipan and Guam; the Battle of the Philippine Sea (in which 300 enemy aircraft were downed); and the Western Caroline, Western New Guinea, Levte, Luzon and Iwo Jima campaigns.

During the attack against Formosa on 14 Oct 1944, Boston rescued the

AWARD of the Freedoms Foundation is presented to Bing C. Adams, AM3, USN, by RADM J. P. Monroe, for his entry in fourteenth annual contest.



severely damaged cruiser uss *Houston* (CL 81) which had been torpedoed, towing her out of further danger. (The towing operation had to be directed by telephoned reports to the bridge from the fantail; it was too dark for normal bridge command procedures.)

After the war, Boston was mothballed at Bremerton, Wash.

In January 1952, her classification was changed to CAG 1, and she was towed to Camden, N. J., for conversion to the first guided missile cruiser.

The conversion process required the removal of her after 8-inch gun turret, which was replaced with two twin *Terrier* antiaircraft missile launchers and associated magazines and handling systems. Her 40mm battery was replaced with 3-inch rapid-fire guns, and she took on new fire control and search radar.

Recommissioned as CAG 1 on 1 Nov 1955, *Boston* demonstrated the effectiveness of her *Terrier* ship-toair missiles during her first major fleet exercise.

In November 1956 she left Norfolk, Va., for the first of six cruises with the U. S. Sixth Fleet in the Mediterranean. During each of these cruises she fired missiles and demonstrated advanced air defense capabilities.

In the summer of 1958, Boston participated in the U. S. Marine landings at Lebanon.

Since September 1958, Boston has been operating out of Boston, Mass., her present home port. She continues to bolster North Atlantic defenses and will probably see a lot of active service in the years to come.





BIG OPENING-Seabee Technical Assistance Team (STAT) loads jeep and front end loader into GV-1 Hercules.

STATs Are Not Static

In recent training maneuvers at NAS Quonset Point, R. I., men of a Seabee Technical Assistance Team (STAT) demonstrated the potential mobility and flexibility of an airlift for a fully equipped team.

STATs are the Atlantic and Pacific Fleet Mobile Construction Battalions' new breed of counter-insurgency builder-fighters. In the event of a natural disaster, these teams and their equipment may be flown quickly to help in rescue and other aftermath operations. They will also help when needed in developing foreign countries.

For the training maneuvers, construction equipment, camp supplies, spare parts and other items were loaded aboard one of Air Development Six's C-130 (GV-1) Hercules in preparation for a simulated deployment. This served to acquaint the men of STAT with the problems which could be encountered in this type of operation.

STATs are continuously being organized and trained by the Commander, Construction Battalions Atlantic and Pacific Fleets.

Arneb Returns from Icy South

The attack cargo ship uss Arneb (AKA 56) has returned to Norfolk after a seven-month, 32,000-mile mission to the bottom of the world.

This was the amphibious force

ship's eighth consecutive Operation Deep Freeze cruise, during which she delivered tons of supplies to U. S. research bases in the Antarctic.

Arneb left Norfolk last October and steamed to Davisville, R. I., to load supplies for her trip to the icy continent. She arrived in New Zealand, jumping-off point for Antarctica, early in December, on the first leg of the cruise.

The ship made two trips to Antarctica during this deployment. Ice in the Ross Sea hampered Arneb during her first trip to McMurdo Sound. Three icebreakers were needed to clear a passage for the ship.

Arneb has participated in every Deep Freeze operation since the program began in 1955. She delivered a 460-ton nuclear reactor to the facility at McMurdo Sound on her last deployment.

Transfer at Sea

uss Dixie (AD 14) and Picket (AGR 7) were operating in northern Pacific waters off the coast of Washington. One of Picket's sailors, Charles Cox, was seriously injured when he was thrown off balance and fell.

Picket had limited medical facilities and requested assistance in transferring the injured man to a hospital ashore.

Dixie was steaming to Seattle from her home port at San Diego when she heard Picket's call for help. She changed course and headed southwest into open sea at flank speed to rendezvous with Picket.

Before the two ships could rendezvous, a Navy patrol seaplane at-

Amphibious Assault Award

An Amphibious Assault Award has been presented to Amphibious Construction Battalion One. The battalion believes it is the first of its type to receive this honor.

Denoting excellence in the performance of an amphibious exercise, the award was given to ACB I for conducting a Z-37-A exercise with a grade of *outstanding*. This involved the side loading, launching, carrying, and installing of a causeway pier.

The battalion is authorized to display the insignia for six months, or until the end of the fiscal year, whichever is longer. The insignia is made up of two crossed anchors with an arrowhead piercing the anchors horizontally at their junction. It may be displayed on the

battalion's floating craft and at command headquarters at the U. S. Naval Amphibious Base, Coronado, Calif.



GOOD SHOW — Commodore F. R. Whitby, USN, presents Amphibious Assault Award to CDR D. C. Snyder, CO of ACB-1 for excellent work.

tempted to transfer Cox aboard but rough water prevented the plane's

landing.

Although *Dixie's* captain had heard of the seaplane's arrival, he kept his ship on course toward the rendezvous point. When word was received that the seaplane could not land, *Dixie* resumed flank speed.

Dixie came alongside at a distance of 200 yards and a motor boat was lowered from Picket into the rough water in an attempt to get Cox within reach of Dixie's mechanical hoist.

The motor boat successfully bobbed the distance between the two ships and Cox was hoisted aboard and examined by the tender's doctors.

When *Dixie* arrived at Seattle, Cox was removed to a hospital at Fort Lewis, Wash., for treatment.

Water Bird Works Wonders

Pilots and other aviation personnel assigned to Pacific Fleet ASW helicopter squadrons are well acquainted with Helicopter Squadron 10 at Naval Auxiliary Air Station, Ream Field. HS-10 has been supplying the Pacific Fleet ASW helo squadrons with men since it was commissioned in June 1960.

Since September 1961, HS-10 has been conducting training on SH-3A Sea King helicopters, boat-hulled turbo-copters with sponsons.

After they have mastered theory, the HS-10 antisubmarine warriors receive practical experience in a chopper known to squadron members as the "water bird."

The water bird, before it joined HS-10, was the victim of a crash and was dredged from the ocean bottom off the San Diego coast.

After her resurrection, she was modified by the removal of her sonar dome and was again made watertight. The rejuvenation seems to have worked wonders, for the bird made her 500th water landing this summer.

The water bird is used to teach students how the turbo-copter acts in and over water and is used to give the learner confidence during overwater operations.

She is also used to teach beginners tricks of the ASW trade which may some day prove to be lifesavers.

Since HS-10 was commissioned, the squadron has turned out approximately 1000 graduates—pilots, aircrewmen and maintenance personnel. —Kyle Mcgonigle, JO1, USN



TOGETHERNESS—Members of the Navy's precision flight exhibition team, the Blue Angels, pose with jet in which their leader performs.

Blue Angels Hit 1000 Mark

After 17 years of precision flight exhibitions, the Navy's Blue Angels aerial show team still finds plenty of sky to burn, lots of new tricks to perform—and draws record crowds of spectators in the process.

Formed in the summer of 1946, the Blue Angels are the oldest flight demonstration team in the world. Blue Angel pilots have performed tricky aerial maneuvers before some 70 million spectators throughout the United States, Canada and Bermuda.

This year alone the Blue Angels are working on 80 air shows, one of which—a Fourth of July exhibi-

LONG JOB — E. Worthington, SM2, and R. Brooks, SM2, unroll 610-foot-long homeward bound pennant flown by USS Springfield (CLG 7).

tion at NAS Lemoore, Calif.- was the team's 1000th.

In spite of performing some of the tightest aerial maneuvers ever seen, the Blue Angels have the safest record of any such show team in the world. No Blue Angel pilot has ever had a mishap during a public showing.

The Blue Angel trademark, a tight diamond formation, is the closest flown by any team—only 36 inches between wingtips and canopies; 14 feet of wing overlap.

Test Center in Bahamas

The United States will build a 95-million-dollar Atlantic Undersea Test and Evaluation Center (AUT-EC) in the Bahamas.

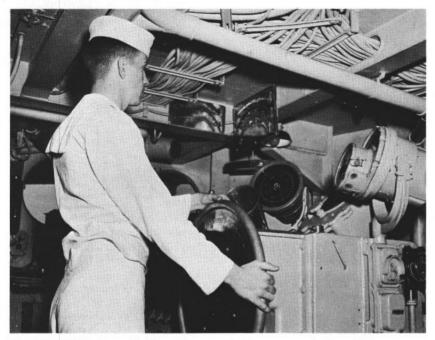
The U. S. Navy will use the center to conduct deep ocean research and evaluate new developments in undersea warfare detection devices. The facilities at AUTEC will be used by the Royal Navy on a scheduled basis.

Short-range weapons will be evaluated at the new center, but no weapons with explosive warheads will be used, tested or stored there.

The shore facilities of AUTEC will be located on Andros Island, Bahamas, which is adjacent to "Tongue of the Ocean"—a deep protected trench open only at the northern end. This basin provides the deep ocean environment required, but at the same time, is sheltered from the open sea.

Only small craft will be based at AUTEC. The AUTEC will be operated by about 300 Navy and civilian personnel and will have a Royal Navy liaison officer attached.

The United States expects AUTEC complex to be completed by 1970



PILOT HOUSE—Seventh Fleet Navyman takes turn at helm, which requires maximum attention, sharp eyes on the compass and steady hands.

Meet Chief Maguire, Citizen

How would it feel to wake up one morning and find you're an alien in your own country? And, then discover that you can't even prove you were born?

To Dan Maguire, BTC, usn, attached to the Naval Air Station, Memphis, Tenn., it wasn't just a

PIPE THIS—Gasoline tanker USS Chewaucan (AOG 50) refuels a ship while underway in Atlantic waters.

50

bad dream. It was a rude awakening to a strange and real predicament.

Chief Maguire enlisted in the Navy in 1942. Serving with the Atlantic Fleet during World War II, he saw action in the invasion of Southern France. He served on board a destroyer during the Korean conflict.

Several months ago he completed 20 years' service and decided to transfer to the Fleet Reserve. That's when he got his first shock.

In the routine check of his application for retirement, a watchful Navy yeoman found that the chief was not a citizen of the United States. Chief Maguire was born in Leith, Scotland. He came to the States with his mother in 1927, following his father who had come two years earlier to pave the way. His father filed an application for citizenship, and was naturalized in 1932. According to Maguire, the family figured that with Dad being a citizen, so were his children. Therefore, none of them made an effort to file for their papers. However, as far as the Navy and the U. S. Immigration and Naturalization Service were concerned, the chief was still a British subject.

On finding that he wasn't actually a citizen, Maguire wasn't too concerned. He knew Federal law provided for aliens who served in the U. S. Armed Forces during wartime and who wish to become citizens. All he had to do was prove that he was born.

Maguire wrote to the authorities in Scotland. It appeared that the courthouse where his birth certificate was filed had burned. At the time his birth registration could not be located.

Thanks to a little additional checking however, by the Immigration and Naturalization people, and acceptance of the fact that if a man is standing in front of you, he must have been born at one time or another, Maguire received his citizenship papers retroactive to 1942.

Maguire is now eligible for transfer to the Fleet Reserve, but he'll wait awhile. While sweating out the red tape, he extended his enlistment for two years.

Rolling, Swinging, Pitching Band

Carrier-based bands usually furnish music for the men manning the hoses during a fuel replenishment at sea. This summer, however, uss *Duncan* (DDR 874) furnished the same service with elan when the Commander Seventh Fleet band played while *Duncan* was being refueled by uss *Caliente* (AO 53). The band was on board *Duncan* for a port visit to Singapore.

The bandsmen had to hold on to their white hats while performing on the 02 deck of the rolling, pitching destroyer to keep them from being knocked off by heavy spray but the music sounded just fine despite the rough sea.

Appropriately enough, as the Yokosuka-based destroyer broke away from the oiler, the band played "Sayonara" and "Anchors Aweigh."

Small Crew, Big Reenlistment

The Naval Air Facility at Naples, Italy, isn't big (450 men) but the men stationed there must like it, because from 90 to 95 per cent of them reenlist.

The high rate may be due to the particular attention given to keeping the men informed of advantages available to those who choose a Navy career.

Pamphlets and courses which enable NAF men to take full advantage of Navy educational opportunities are always available. There are also menin-the-know to answer questions concerning courses, examinations and career programs in the Navy.

Their counseling must be effective, because recently an AC1 at NAF Naples was selected to attend OCS through the Integration Program, while a former chief entered officer ranks through the LDO Program.

Particular attention is given to men reenlisting for the first time, to get them into the program most advantageous to their careers. In addition, the personnel office takes special pains to help reenlistees by checking their service records, obtaining information on family benefits and processing papers.

Reenlistees have another reason for shipping over. It's a good outfit.

New Nuclear Frigate Named

The name *Truxtun* has been approved for the Navy's second nuclear-powered guided missile frigate, DLGN 35.

Scheduled for launching in October of next year, *Truxtun's* keel was laid 17 June.

The new frigate is the fifth U. S. Navy ship to be named in honor of Commodore Thomas Truxtun (1755-1822). Commodore Truxtun served throughout the Revolutionary War as a privateersman, preying on British shipping from the West Indies to the English Channel. He was in charge of construction of the famous frigate Constellation and was her first commanding officer upon her commissioning in 1798. Commodore Truxtun resigned in 1802.

Mexican Navymen Visit Norfolk

The United States Navy had an opportunity to demonstrate its good neighbor policy this summer when two ships of the Mexican Navy, *Queretaro* and *Potosi*, arrived at Norfolk with more than 600 officers and enlisted men on board.

Queretaro and Potosi came to Norfolk in response to the U. S. Navy's invitation. They were engaged in a training cruise of Mexican naval cadets which began at Acapulco, Mexico.

A Navy band was on hand to greet the visitors, whose spare time was filled with receptions, picnics, softball games, a dinner and a swimming party.

On their last day in port, the Mexican Navymen toured colonial Williamsburg near Norfolk.

USS Beale (DD 471) was host to Queretaro, and Murray (DD 576) was host to Potosi.



VISITING ROK midshipman accepts ship's plaque of USS Pine Island (AV 12) presented to Korean Naval Academy by LT V. V. McGee, USN.

Koreans Exhibit Karate Skill

While visiting Chin Hae, Korea, this summer the crew of uss *Pine Island* (AV 12) invited 100 cadets of the South Korean Army and 50 ROK midshipmen to tour their ship. They also held open house for civilian visitors.

The U. S. Advisory Group in Chin Hae challenged *Pine Island* Navymen to a game of Korean baseball, which the *Pine Island* team won, and a bowling tournament which ended in a tie.

The ship's crew was also given a karate exhibition by a group of Korean karate black belts.

Pine Island operates out of Buckner Bay, Okinawa. She serves as a mobile base for long-range reconnaissance and ASW seaplanes and is flagship for Commander Patrol Forces, Seventh Fleet.

German Sailors Visit U.S.

The attack aircraft carrier uss Bon Homme Richard (CVA 31) played host to two West German naval training frigates which made a one-week visit to the Seattle, Wash., area recently.

During the week the two ships, Graf Spee and Hipper, entertained 40 men from Bonnie Dick at a party. Bon Homme Richard reciprocated by inviting the German sailors to

tour the carrier, then have a meal on board as guests of the crew. Several officers from the ships participated in the exchange visits.

The German ships were on a training cruise which originated in Kiel, Germany, and traveled to the west coast via the Panama Canal.

Bon Homme Richard is undergoing an overhaul at Puget Sound Naval Shipyard in Bremerton, Wash.

CREWMEN from visiting West German training ships dine in crew's mess aboard USS Bon Homme Richard (CVA 31) in Bremerton, Washington.





HOME AGAIN-The guided missile frigate USS Dahlgren (DLG 12) has returned to Norfolk, Va., after four-month cruise in Mediterranean.

Jack Is Launched

Another nuclear submarine has been launched and is scheduled for commissioning in 1964. Jack (SSN 605) slid down the ways at Portsmouth Naval Shipyard, Portsmouth, N. H., early this spring.

This is the 130th submarine to be built by the Portsmouth shipyard, and the second ship of the Fleet to be named Jack. The first was uss Jack (SS 259), which fought in the Pacific during World War II.

The new Jack is 296 feet long, has

DOWN TO SEA - Guided missile frigate Belknap (DLG 26) slides into

water during launching ceremony.

a 32-foot beam, and will displace almost 4500 tons submerged. She will carry 10 officers and 85 enlisted

A Thresher class sub, Jack's keel was laid 16 Sep 1960. Jack is longer than the first ship of its class, uss Thresher (SSN 593). A powerful sonar system and an integrated fire control system for advanced underwater weapons will be part of her equipment.

The first Jack was commissioned 6 Jan 1943, After World War II action, she was decommissioned 8 Jun 1946. In April 1948 she was turned over to the Government of Greece and became a member of the Royal Hellenic Navy. Renamed HRHS Amphitriti (Y-17), she is still an active ship with the Greek Navy.

Look Dad, No Hands

A big moment in carrier aviation was achieved off the California coast as two Naval Air Test Center jets from Patuxent River, Md., successfully completed the first fully automatic carrier landings using production equipment. The landings were made aboard the attack carrier uss Midway (CVA 41).

The jets, an F4A Phantom and an F8D Crusader were piloted by Lieutenant Commanders R. K. Billings and R. S. Chew, Jr.

The landings were made completely "hands off" while both the flight controls and throttles were operated automatically through signals from the carrier Midway and the aircrafts' angle of attack sensor.

The automatic system is considered an important step forward in carrier aviation because, with refinements, the system could land an airplane aboard a carrier without the pilot ever being able to see the deck.

The Midway landings highlighted nearly 10 years of intensive research, developing, testing and evaluation. The automatic carrier landing system was conceived in 1954 and the first automatic landing was made aboard the uss Antietam in September 1957 in an F3D. Shore-based tests at NATC were completed in May 1963.

The main portion of the automatic system is the SPN-10 precision radar which, through computers, constantly determines the airplane's position in space. The information is fed into a computer which compares the airplane's actual position to the desired position in the landing approach. Corrections are sent to a receiver in the airplane which moves the control surfaces to bring the airplane to the proper position in the landing approach.

The system is capable of landing the airplane within five feet of the ship's centerline and 10 feet of the desired touchdown point.

An Old Friend Visits Pearl

The naval base at Pearl Harbor, Hawaii, has finally been visited by a ship of the Pakistani Navy. The visitor, however-billed as the first Pakistani ship to call at Pearl-looked very much like one that had been there many times before.

And for good reason.

Stopping at Pearl Harbor this summer, PNS Dacca (A 41) was, indeed, the first ship to call there flying the colors of Pakistan. But, as USNS Mission Santa Clara (TAO 132) of the Military Sea Transportation Service, she is a veteran caller of U.S. ports, and has probably been in Hawaiian waters more times than the most agile wahine could shake a grass skirt.

The former MSTS ship was renamed Dacca after her transfer to Pakistan earlier this year under the Mutual Assistance Program. She is the Pakistan Navy's first and only fleet oiler. Dacca's visit to Pearl was a scheduled stop while en route to her new home port at Karachi, Paki-

In typical Hawaii fashion, the Pakistani Navymen were greeted and generally made welcome in the 50th state.

Official host for the visit was the SERVPAC oiler USS Kawishiwi (AO 146).

Before departing for Karachi, Dacca's commanding officer, CDR Raja M. Aziz, radioed thanks to Hawaiian area naval commands: "On the eve of our departure from 50th state of your great country, we salute U. S. Navy for making our brief stay at Pearl Harbor most memorable."

Preston Still Has Keen Eye

A World War II destroyer that had once been scheduled for moth-balling has not only outshot her more modern sisters, but may have set a new record in conventional gunnery. She is uss *Preston* (DD 795), presently homeported in Long Beach.

Preston downed eight consecutive aerial target sleeves and one drone aircraft. The target towing squadron, UtRon Seven, called it "the best shooting ever seen," and Preston considers it pretty good, herself.

The drone and four of the sleeves were downed by the ship's three-inch guns and the remainder were dispatched by the five-inch battery.

Preston, a Fletcher class destroyer, was due to be mothballed in April. However, the decommissioning was postponed and the ship instead spent three months being overhauled in Long Beach.

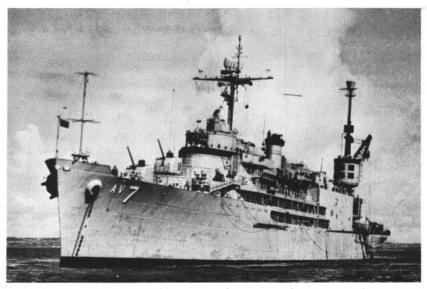
Preston is a veteran of a number of major battles during World War II, including the assault of Guam and the first and second attacks on the Philippine Islands. In the latter days of the war she participated in the carrier strikes on Tokyo.

The destroyer is the fourth in U. S. naval history to bear the name. The first was a coal-burning destroyer launched in 1909 and stricken from the Navy list in 1919.

The ship is a unit of the Long Beach-based Cruiser Destroyer Flotilla Three. —Jon Franklin, JO2, USN

Larson Has Dashing Air

Uss Everett F. Larson (DD 830) claims to be the first Long Beachbased destroyer to receive the Navy's Drone Antisubmarine Helicopter (Dash) weapons system. Following two weeks of intensive operations, Larson was certified to be qualified for Dash by the ships' qualification team of Commander Cruiser-Destroyer Force, U. S. Pacific Fleet.



OUT WEST - USS Currituck (AV 7) rides at anchor in Buckner Bay, Okinawa, while serving as flagship for Patrol Force, Seventh Fleet.

The drone helos were received early this summer by a ground-to-ship transfer from Utility Squadron Three, Dash training installation at San Clemente Island. After being launched from the island, control was transferred to Larson, and Dash was received on Larson's flight deck. Since then, destroyermen on board Larson have become accustomed to launching and recovering the aircraft.

The *Dash* payload is a modern homing torpedo which can be delivered from the helo several miles from the destroyer.

Presently, VÚ-3 trains Dash detachments for the Pacific Fleet. A detachment consists of one officer and four to six enlisted technicians. The group is assigned to a destroyer and

is in charge of the *Dash* system under the cognizance of the ship's weapons officer. The ship trains one of her own officers as a *Dash* controller, for once launched the drone is controlled in the ship's combat information center.

Each destroyer which has undergone Fleet Rehabilitation and Modernization (FRAM) can carry two drones. The installation allows launching and recovering even in high seas and other adverse weather conditions.

The drone is powered by a gasturbine engine and is controlled through transmitters, coders, and antennas. It can be guided and operated either from within the CIC or by an operator manning a control box on the deck of the destroyer.

REFUELING and highline stations on board USS Navasota (AO 106) are manned and ready as the oiler prepares to receive a carrier alongside.



THE BULLETIN BUARD

Where Do You Go to Find Out About Quals for Your Rating?

of your best friends is NavPers 18068A, otherwise known as the Quals Manual.

This publication (Manual of Qualifications for Advancement in Rating) lists nearly all the requirements you must satisfy to be eligible for the advancement exam. It is the official manual which established minimum professional and military qualifications.

The general requirements to be met for enlisted advancement are listed in BuPers Manual and BuPers Notices and Instructions. These are requirements which apply to ALL enlisted personnel. Most of this information is published from time to time in your plan-of-the-day, or otherwise made known to you—probably by your division officer or chief.

But the Quals Manual lists specific requirements for each rate and rating, for each step of the way. It lists, for example, the military requirements (pay grades E-2 through E-9) and the professional requirements (pay grades E-4 through E-7) in the form of both practical and knowledge factors, which must be met before advancement to seaman, airman, constructionman, dentalman, fireman, hospitalman or stewardsman; and for all the ratings, from aviation boatswain's mate third, second and first class, chief, and senior and master chief, right down the rating list to yeoman.

It is essential that you become fully acquainted with the requirements set forth for the rate you are seeking, and the best way you can do this is by consulting the *Quals Manual*. It's a hefty document, and there are normally only one or two at your command (probably in I & E), but your Personnelman will be happy to be at your service.

The better acquainted you are with the sections which pertain to your rating, the better chance you'll have for advancement. The Quals Manual is also used as a guide for preparing training courses, training

P. F. MATTHEWS, JO2, USN



"I hear we got a direct hit on the sleeve."

publications, on-the-job training programs, school curricula AND servicewide advancement examinations.

The Quals Manual has recently been revised, so this may be a good time to become familiar with it if you haven't done so. Several streamlining features have been introduced.

The preface draws an outline of the purpose of the *Quals Manual*. This is followed by a list of the criteria necessary for establishing a Navy rating as used by the Bureau of Naval Personnel when it is considering a proposed change in the enlisted rating structure.

Next are listed the criteria for qualifications changes for enlisted ratings. The Chief of Naval Personnel has requested cognizant bureaus, offices and individual commands to be alert to detect obsolete qualifying requirements for the various rates and ratings-or, to be alert likewise to new developments becoming Fleetwide, thus requiring inclusion of new qualifying requirements in the manual. One section of the mannual classifies the cognizant departments responsible for keeping tabs on each rating, and tells how recommendations for changes or additions to qualifications should be submitted. This keeps quals up to date.

Also included in the front of the manual are guides to be followed for proposing a new rating, and a list of definitions of commonly used, and confused, terms.

The section entitled "Enlisted Rating Structure" is very useful. Besides describing the enlisted rating structure—its purpose and structure—it includes a chart which shows the complete advancement pattern, from general, service and emergency ratings to the LDO designator applicable to each rating's path of advancement

The chart shows, by pay grade, the sub-specialties or service ratings of each general rating that has one or more service ratings. It shows at which pay grade these service ratings fuse into the general rating. Example: Steelworker (SW) is a general rating, which means it is a broad occupational field requiring a certain pattern of aptitudes and qualifications, and provides a path of advancement for career development. But the SW rating also is subdivided into areas where men specialize. These are SWE (Steelworker erector) and SWF (Steelworker fabricator). All steelworkers in pay grades E-4 and E-5 fall into one or the other of these categories. But, at the E-6 pay grade level, the two service ratings SWE and SWF merge, and the rating then becomes simply SW, which requires that anyone SW1 and above must have a more rounded knowledge of the entire steelworker rating, whereas up to that time he was able to specialize.

Boatswain's mate is an example of a rating which has no service ratings.

Another new feature of the manual is the "Performance Test Instructions" section. Previously, various performance tests required for certain ratings were specified under each applicable rating. The new performance tests section gives complete instructions for administering each type of performance test, and lists the ratings which are required to qualify. These include, for example:

- Flashing light and semaphore test: QM, SM.
 - Stenography: YN.
- Transmitting and receiving:
 RM.
- Typing: AG, AK, DT, DK, HM, JO, PN, PC, SH, SK, YN, and two emergency service ratings, ESU and ESR.
- Welding: SF, BR, and the emergency rating ESM.

Two points of interest in this section concern the typing and much-discussed stenographic requirements. First, in case there is any doubt about it, the manual states that touch typing is not required of AK, AG, DT, HM, JO and SH ratings. These may qualify using the peck method.

And for yeomen finding it difficult to master shorthand, there may yet be a way for them to earn that E-6 crow. The manual states that the stenographic requirement may be satisfied with the use of machine shorthand, if the machine is provided by the yeoman. This does not include use of a steno mask.

Separate sections in the manual are devoted to listing the *military requirements* for every rate (pay grade), and for listing the necessary qualifications for all of what are termed "general rates," that is, AN, CN, DN, FN, HN, SN and TN. Then the manual goes on to describe, by group, the required qualifications for advancement in each of the general ratings, general ratings with service ratings, and emergency ratings.

Emergency ratings are something we don't hear much about today. They are for men who are qualified in civilian skills which are normally needed only during wartime. The manual lists the qualifications for advancement in these emergency ratings-11 of them, which are: Booker (motion picture service) (ESU); chaplain's assistant (ESC); firefighter (ESF); harbor defense sonarman (ESH); instructor (miscellaneous) (ESI); physical training instructor (ESE); stevedore (ESB); telecomm censorship technician (ESK); transportationman (ESR); underwater mechanic (ESM); and welfare and recreation leader (ESW).

Periodically, each rating is reviewed and qualifications are revised

NOW HERE'S THIS

Recruit to Admiral, Nebraska Style

From civilian to seaman recruit to admiral in only nine weeks is unbelievably rapid advancement, but it happened to 60 men at the Naval Training Center, San Diego.

They are members of the Nebraska "Beefstate" Company, who received certificates proclaiming them "Admirals in the Great Navy of the State of Nebraska."

This not-to-be-regarded-lightly honor was conferred upon each of the men by the Governor of Nebraska during swearing-in ceremonies at the State Capitol, but the certificates were held for presentation until completion of recruit training.

The admirals performed in a manner fully befitting their positions while undergoing training. They snagged every weekly battalion award at least once, and graduated as Brigade Honor Company.

on the basis of new equipment, procedures, techniques or new areas of functional responsibilities. (See box for schedule of review of each rating.) Several which have recently been reviewed and revised have these revisions incorporated in the present manual. These ratings are: DN, FN, RD, FT, MN, TM, CS, DK, RM, SH, YN, MR, MM, SF, EA, UT, PT, AT, AQ, DT, SD and ESU.

Major revisions include:

 The engineering aid (EA) general rating has been revised to exclude hydrographic requirements and expands the present Planning and Estimating and Quality Control requirements.

 Defensive tactics requirements for all Group VIII, construction, general ratings have been updated.

• The ATN, ATR, ATW, AQB and AQF service ratings have been extended through pay grade E-5.

Requirements of the steward general rating have been revised to reflect qualifications for increased responsibilities in the higher pay grades for BOQ/officer mess management.

Though these and other changes in qualifications in the above list of ratings have been incorporated in the new *Quals Manual*, the revised qualifications will not be incorporated into advancement examinations until February 1964 for USN and USNR personnel on active duty, or until July 1964 for USNR personnel on inactive duty.

Another chart at the end of the *Quals Manual* shows the path of advancement for ratings within each group of the enlisted rating structure.

Only the new aviation maintenance administrationman (AZ) rating has been omitted from the new volume, because the manual was almost ready for printing before the AZ rating was formally approved.

Remember that the Quals Manual is a friend, indeed.

Quals Manual Will Change on Schedule

Here is the schedule of planned revisions to the qualifications for advancement to the various rates and ratings during the next fiveyear period. All ships and stations are invited to review current rating qualifications in which they have an interest and submit recommendations for changes as far in advance of the scheduled publication date as possible to provide adequate time for research, review and printing. Changes should reflect technical, operational and procedural developments which occur in the Navy, as well as improvement of content, format or any other aspect of the Quals Manual.

June 1964: AC, AD, AE, AQ, BR,

BT, BU, CE, CT, DM, ET, GM, MA, MT, PH, PN, SN, SO, SW, ESC and

June 1965: AG, AN, AT, AX, CM, DS, EM, EN, EO, HM, IC, IM, JO, OM, PC, PM, PR, QM, SM, ESE, ESI and Military Requirements.

June 1966: AB, AK, AO, BM, CN, DC, FT, LI, ML, MM, MN, MR, MU, PT, RD, RM, SD, SK, TD, TM, ESB and ESK.

June 1967: AC, AD, AE, AM, AQ, BR, BT, CE, CS, CT, DK, DT, EA, ET, GM, HN, MT, SF, SH, SO, UT, YN, ESW and ESR.

June 1968: AG, AT, AX, BU, CM, DM, DS, EM, EN, IC, IM, MA, OM, PH, PN, QM, SM, SW, TN, ESF and ESM.

Professional Requirements Set For Deep Freeze Volunteers, Deadline Is 1 November

If you're in top physical condition, and are professionally qualified, now's the time to apply for next year's Operation Deep Freeze.

The Navy's manpower requirements for the 1964-65 Antarctic Program, as announced in BuPers Notice 1300 (dated 24 Jul 1963), make it clear that all assignments to Deep Freeze will be based on applications—and those who can qualify are urged to volunteer.

Those needed for the winteringover party, which will remain in the Antarctic for at least one year, are:

• Officers — 13XX CDR (Commanding Officer); 1530/13XX LCDR and below, aerological experience; 13XX LCDR or LT, ground control approach experience; 11XX LT and below, communication experience; 21XX LCDR or LT, including flight surgeon with previous active duty; 22XX LT; 31XX LCDR and below; 41XX LCDR and below; 51XX LCDR and below; 849X; 798X.

• Enlisted—et, RM, YN, PN, SK, DK, CS, SH, SH-3122, EM, IC, EN, DC, SF, CE, CM, EO, BU, SW, UT, CN, AG, AB, PH, HM, DT, MR, AC, AT-1577.

In addition, 120 officers and enlisted men will be selected for duty with Air Development Squadron Six (VX 6), the Navy's chief Antarctic

support group.

• Officers in the following grades/designators are required for VX 6: 13XX CDR and below, experience in C-121, C-117, H-34, P-2J, or C-130 aircraft types: 135X LT and below, experienced aerial navigators; 31XX LCDR and below; 711X; 741X; 831X; 680X LT/LTJG; 685X LT/LTJG.

It has been estimated that 20 officers will be selected for VX 6, four of whom will be assigned to the

wintering-over party.

• Enlisted men picked for VX 6 will number approximately 100, 23 of whom will be assigned to the wintering-over party. Ratings required are: RM, JO, AM, AME, AMH, YN, PN, SK, DK, CS, AN, AB, AK, PR, PH, HM, TN, AD, ADJ, ADR, ADH, AT, SD, ATN, ATR, AE, AEI, AEM, AMS, DT.

Volunteers for the Antarctic Program are subject to the following eligibility requirements.

All-Navy Cartoon Contest Alfred B. Castro, SK2, USN



"Pssst . . . Holler when the mobile canteen arrives."

 Must have 24 months' obligated service. (Those with insufficient obligated service may agree to extend.) Naval Reservists and men eligible for transfer to the Fleet Reserve must agree to remain on active duty for 24 months.

 Must have a clear record reflecting sound moral character and professional dedication. Any history of pending domestic problems or indebtedness is disqualifying.

 Those who apply for duty with VX 6 must be cleared for access to

secret material.

 Maximum age for enlisted men is 45 years. (Requirement waived for chief petty officers who have exceptional professional qualifications.)

 All candidates must meet the strict physical standards outlined in BuPers Notice 1300. Only those in top physical condition, and temperamentally adaptable to the rigorous conditions of Antarctic service, will be considered for assignment.

All applications for the 1964-65 Deep Freeze must be on the desk of the Commander, U. S. Naval Support Force, Antarctica, no later than 1 Nov 1963. The best qualified of those who volunteer will be selected early next year.

Once selections have been made, men in East Coast units will be ordered to the Naval Station in Washington, D. C., for screening. Those in West Coast units will be ordered to the Receiving Station at San Francisco.

Those who are finally selected

will be ordered to Antarctic Support Activities, Davisville, R. I., or to the VX 6 home base at NAS Quonset Point, R. I.

Actual deployments to the Antarctic will get underway in September

1964.

All those who complete Deep Freeze tours will be awarded the Antarctic Service Medal.

And, every effort will be made to assign those who complete wintering-over to duty of choice.

Retirement May Be Routine But Not If You're Needed —Here's Latest Directive

If you're planning on voluntary retirement after 20 years of active service, the latest policy directive on the subject brings up some points you should keep in mind.

SecNav Inst. 1811.3E, which has been effective since 1 July 1963,

makes it clear that:

 Voluntary retirement after 20 years of service is not an indisputable right.

 Regular Navy officers have a legal, vested right to voluntary retirement only after the completion of at least 40 years' active service.

 Enlisted personnel have a legal, vested right to retirement only after

30 years' service.

It boils down to this: Retirement after 20 years' service can be a routine matter, but it's not a right.

All requests for 20-year retirement are considered on the basis of service needs, and individual merits.

Normally, voluntary retirement is granted for the following:

• Flag officers with 30 years of active service and at least five years' service in flag grade.

• Other officers with at least 30 years' active service.

• Commanders and captains (0-5 and 0-6), warrant officers W-3 and W-4, and chief petty officers (E-7, E-8, E-9) who have completed at least two years' service in grade.

Officers who twice fail selection

for promotion.

• Those with limited assignability owing to over-age in grade, health deterioration, or similar causes.

 Those with serious personal hardships that could be alleviated by retirement.

It is often necessary to reject requests for retirement, even in cases

covered by one or more of the above points. For example, men who have special skills the Navy wants to make use of, and men in special billets that would be hard to find replacements for, often have their requests for retirement deferred.

These and other retirement policy matters are discussed in SecNav Inst. 1811.3E.

Latest List of New Motion Pictures Available to Ships and Overseas Bases

The latest list of 16-mm feature movies available from the Navy Motion Picture Service is published here for the convenience of ships and overseas bases.

Movies in color are designated by (C) and those in wide-screen processes by (WS). They are available for ships and bases overseas.

Spartacus (2354) (C) (WS): Drama; Kirk Douglas, Jean Simmons.

Donovan's Reef (2355) (C): Action Drama; John Wayne, Lee Marvin.

Cattle King (2356) (C): Action Drama; Robert Taylor, Joan Caulfield.

Get On With It (2357): Comedy; Bob Monkhouse, Shirley Eaton.

El Cid (2358) (C) (WS): Drama; Charlton Heston, Sophia Loren.

The Birds (2359) (C): Drama; Rod Taylor, Suzanne Pleshette.

Drums of Africa (2360) (C): Melodrama; Frankie Avalon, Marietta Hartley.

Amazons of Rome (2361) (C): Drama; Louis Jourdan, Sylvia Syms.

The Black Zoo (2362) (C) (WS): Drama; Rod Lauren, Virginia Grey.

The Young Racers (2363) (C): Comedy Drama; Mark Damon, Luana Anders.

Diplomatic Courier (2364) Drama; Tyrone Power, Patricia Neal (Re-Issue).

The Gunfighter (2365): Action Drama; Gregory Peck, Helen West-cott (Re-Issue).

Spencer's Mountain (2366) (C): Drama; Henry Fonda, Maureen O'Hara.

Duel of the Titans (2367) (C) (WS): Drama; Steve Reeves, Gordon Scott.

Erik, the Conqueror (2368) (C) (WS): Action Drama; Cameron Mitchell, Alice Kessler.

A Gathering of Eagles (2369) (C): Drama; Rock Hudson, Mary Peach.

Miracle of the White Stallions (2370) (C): Drama; Robert Taylor, Lili Palmer.

Police Nurse (2371) (WS): Drama; Ken Scott, Merry Anders.

The Caretakers (2372): Drama; Robert Stack, Polly Bergen.

The Great Escape (2373) (C) (WS): Action Drama; Steve Mc-Queen, James Garner.

Periodically a list of TV films available for ships and overseas bases will be listed in ALL HANDS.

Time in Grade Plays Role In Retirement Schedule

New minimum two-year obligated service requirements for advancement to any of the three chief petty officer grades, and two-year-in-grade requirements for all chiefs and some officers before retirement or transfer to the Fleet Reserve are now in effect.

The new time requirements are contained in the latest Navy-wide policy directives on the subjects of retirement and advancement. In general, here's what they mean:

• Effective 1 July, all chiefs (E-7,

HOW DID IT START

Style That Goes to Your Head

Since ancient times, warriors have worn helmets as part of their protective equipment in battle. The helmet used by today's Navyman, therefore, has a background that dates back thousands of years. No one is sure just who the first helmet-wearers were, but some of the earliest records show that he Israelites, Assyrians and Persians used battle helmets of brass, leather and iron long before the time of Christ.

Primitive cultures in Africa and the South Seas are said to have used some form of head protection centuries before recorded history

Ancient Greek and Roman war helmets were made of hard leather and later of bronze. The Corinthian style was a rounded shell that covered the entire head, with small openings for breathing and vision.

Around the 10th century, warriors used flat-topped helmets. However, these took the full force of a blow and were easily knocked off the head. A rounded shape then became the vogue because it deflected and spread the force of a hit.

A neck protector called a "lobster tail" became popular throughout Europe during



the 15th century and was used extensively until the middle 1600s. As men became more proficient in warfare and developed new weapons, more emphasis was placed upon the use of metals for protection against arrows, axes, bolts, maces, swords and other weapons of medieval warfare. However, this introduced a serious weight problem. Charles V, King of France (1364-1380), was a man of average size, but records state that his jousting helmet weighed 40 pounds.

When the United States entered World War I an American helmet was not available. A helmet committee appointed by the American General Staff recommended that the British helmet be adopted, and by the fall of 1917 American production of the British helmet was under way.

This helmet was standardized as helmet M1917. After much experimentation during the years between World War I and World War II, a helmet was adopted for use by all types of military and naval personnel. Designated the M1 helmet, it is still used by all services. The complete M1 helmet weighs about three pounds. The steel shell weighs two and one-quarter pounds and the liner three-fourths of a pound. This helmet became standard issue in 1941.

The year before, the Navy's Bureau of Ordnance had completed development of a telephone talker's helmet to be used aboard ship. This helmet was designated Steel Helmet Mark 2, and provided more protection to the forehead, sides and back of the head than the old Army helmet M1917.

The talker's helmet was of one-piece construction with an inner support of soft sponge rubber cemented to the inside of the steel shell. Still used by the Navy, along with the standard M1 type, it has become a symbol of the shipboard Navyman in a combat situation.

E-8 and E-9), warrant officers W-3 and W-4, and commanders (0-5) must complete at least two years of active duty in their respective grades before requesting retirement or transfer to the Fleet Reserve. A similar requirement had already been in effect for captains.

• Also effective 1 July, all enlisted personnel advanced to pay grades E-7, E-8, and E-9 must serve on active duty for at least two years from date of advancement.

In the case of retirement, only those entitled to a higher retired grade are exempt from the two-year requirement.

For advancement to E-7, E-8 or E-9, a man whose enlistment would

All-Navy Cartoon Contest William R. Maul, CT1, USN



"No hurry on that, Harris . . . take all night if necessary."

expire before completion of two years from date of promotion would be required to execute an extension before the advancement is made official.

Administrative details on these points, and full policy procedures on voluntary retirement and enlisted advancement, are contained in Sec-Nav Inst. 1811.3E (Retirement) and BuPers Inst. P1430.7D (Advancement).

Eight Correspondence Courses Issued; Four Discontinued

Eight new Navy correspondence courses have been issued and four courses have been discontinued. Two of the four discontinued courses have been incorporated into one of the new courses. One is issued in revised form.

Discontinued are:

- OCC, Naval Electronics, Part I, NavPers 10925-A1.
- ECC, Basic Electronics, Nav-Pers 91227-B.
- ECC, Aviation Ordnanceman 1 & C, NavPers 91662-A.
- ECC, Guided Missileman 3 &
 NavPers 91360-A.

The cutoff date for receiving credit for Naval Electronics, Part I, and Basic Electronics is 25 Aug 1964. Courses must be completed and submitted to the Naval Correspondence Course Center, Scotia, N. Y., before that date.

The cutoff date for returning Aviation Ordnanceman 1&C, NavPers 91622-A, for grading is 3 Mar 1964. Credit for this course will not be given after that date.

The eight new courses for officer and enlisted personnel are:

- OCC Control of Communicable Diseases in Man, NavPers 91561.
- OCC-ECC Naval Electronics, Part I, NavPers 10445.
- ECC Aviation Structural Mechanic S (Structures) 1 &C, NavPers 91650-1.
- ECC Aviation Ordnanceman
 1 & C, NavPers 91662-1.
- ECC Torpedoman's Mate 1 & C, Vol. II (Confidential, ER NavPers 91299.
- ECC Gunner's Mate (Technician) 1 & C, NavPers 91378. (Confidential) Rest. Data.
- ECC Communications Technician M 1 & C, NavPers 91561, Confidential (modified handling authorized).
- ECC Missile Technician 3 & 2, NavPers 91360-1.

A Case Study from the Files of Navy Relief Society

The August 1963 issue of ALL HANDS contained a rundown on the Navy Relief Society and a report on its operations during a 12-month period.

Here is a case history from the files of the Navy Relief Society which demonstrates how it works with and for an individual family. From time to time All Hands will report on the different ways the Society has helped your Navy shipmates, and how it can be of service to you—in an emergency. The following account comes from one of the Navy Relief Society's annual reports.

THIS CASE involves a first class petty officer, with his wife and five children, ages nine, five, three, two and nine months. He was retired in July with 100 per cent physical disability for tuberculosis and was almost immediately hospitalized in a Veterans' Hospital. Before retirement his family was making out satisfactorily with his pay and allowances. Now there were, however, outstanding bills, being paid through monthly installments totaling \$85.00 for medical care for his wife and for necessary purchases of a refrigerator and furniture.

The Navy Relief Society's first contact came through the medical social worker at the Veterans' hospital, who wrote to say that the man wondered if he could borrow enough to carry his installment payments until he could get back on his feet. It was noted that in lieu of retirement pay, he was entitled to disability compensation by the Veterans' Administration which was somewhat higher. The Society suggested that, as a retired member of the service, the man was still

eligible for assistance. It investigated the amount and nature of the debts, the general family situation and other pertinent facts to help in arriving at an appropriate solution of the problem.

It was found that the Navyman's debts totalled \$629, and were reasonable and legitimate.

In order to get the family back on its feet and in a self-sustaining status, the Navy Relief Society paid the debts and provided an additional \$50 for food for one month as an outright grant. The financial relief here is, of course, obvious. The intangible, however, came out in a subsequent letter from a medical social worker:

"At the present time, Mr. B. is in receipt of his VA compensation. His family finds this allowance quite sufficient after being relieved of his previously acquired debts.

"At this time Mr. B.'s condition has been stabilized enough for him to be recommended for re-sectional surgery. Your assistance to this patient's family played a most important role in helping him feel secure enough to accept surgery."

This Report on Madrid Is a Must for the Navy Aficionado

You WILL FIND living in Madrid or anywhere in Spain—both interesting and challenging. Interesting because you will be living in one of the most unusual countries in Europe; challenging because your job will be probably different from any other assignment you have ever had.

Problems will arise, of course, but other Navymen have coped successfully with them and there is no reason why you can't do likewise. To help you better face them, here is an abstract of the living conditions pamphlet prepared by the Chief of Naval Personnel (Pers G221). For a report on the living conditions in Rota and other parts of Spain, see the March 1958 and October 1961 issues of ALL HANDS.

Housing—There are no U. S. government quarters in Madrid for military personnel assigned to JUSMG and MAAG.

While looking for a permanent place to live, you may stay at a hotel or a "residencia." There are several de luxe, first, and second class hotels in Madrid. Either the European or the American plan may be chosen.

A "residencia" is a residence type hotel. It offers completely furnished apartments including linen, silver, china, etc., plus kitchenettes. They may be rented by the day or week. If you select a "residencia" be sure to check very closely the inventory of the items furnished in the apartment, as upon checking out you will be held responsible for them.

Lists of available houses and apartments are available periodically to new arrivals. In renting a house or an apartment, it is a requirement of Spanish law that a contract be signed; however, before signing any contract, you should obtain legal advice.

Prices range from \$7.00 to \$9.00 and up, depending on size of rooms and number of individuals occupying the apartment.

Hotel or residencia reservations can be made by your sponsor. Let him know what you want, how much you want to pay, etc. Don't be bashful about asking questions or soliciting his aid. He can help you avoid some of the mistakes he may have

made in getting settled in Spain.

Personnel of JUSMG/MAAG without dependents occupy housing (that is, apartments) essentially the same as those with dependents.

Also available for a slightly higher cost are hotel suites with kitchen facilities. However, nothing prevents a single individual from bringing his own furniture and setting up his own apartment or house.

Madrid is primarily a city of apartment buildings, and has relatively few houses. However, it is possible to find some houses surrounded by small gardens in one of the residential districts. These are particularly desirable for families with small children.

Rent for a furnished apartment, suitably located, for naval personnel with a family of three or four, is steep; it ranges from approximately \$170 to \$250 a month with heat furnished. Prices for furnished houses range from \$160 and up, excluding utilities.

Houses and apartments are usually spacious. Most apartments and liouses have separate dining rooms, one or more living rooms, and servant quarters which include a separate toilet and bathing facility.

When renting an unfurnished apartment or house, you may be required to install at your own cost, gas meter, light meter, water meter, all light fixtures, plugs, telephone, shelves, towel racks, mirrors and closet shelves.

Central heating is provided in apartments, but regardless of pre-

All-Navy Cartoon Contest Emmet J. Geisler, YN1, USN



vailing temperature, it is turned on on 1 November and turned off on 1 April. This is the law. Heating a house is expensive. Any type of heating—coal, oil, wood, etc.—is expensive and may cost from \$25 to \$60 a month during the winter months. This is above and beyond your rent.

Normally, apartments do not include garages. However, a very few do. Garage space may be rented for about \$12 a month.

You are required to pay one month's rent in advance and to deposit a month's rent as a guarantee "fianza" before an apartment or house can be occupied. Any breakage or damage is deducted from the "fianza" at the end of the contract. A lease for six or twelve months is required and renewable.

You may have to wait from two weeks to two months before locating a suitable apartment or house, or while awaiting arrival of household goods.

It is estimated that the initial cost for moving into an unfurnished house or apartment may cost \$400 or more. This is to cover the cost of painting, cleaning, purchasing and installing light fixtures, installing gas, telephone, closets, electric and water meters, as desired or required. Some of these costs may be absorbed by the landlords.

Dining Facilities — The U. S. does not operate any dining facilities in the Madrid area. There are officer, NCO and troop messes at Torrejon Air Base, 17 miles from Madrid. These messes are operated for Air Force personnel assigned to the base.

Appliances — Household service is 127 volt, 50 cycle, single-phase, alternating current, which may vary plus or minus 10 per cent. Threephase, four-wire, 220 volt, 50 cycle AC is available for appliances offering this requirement. Small voltage regulators can be purchased locally in the Exchange. It is advisable to have an electrician check your voltage, since some houses are serviced with 220 volts and may require stepdown transformers.

Electric clocks designed for 60 cycle operation will be of no value. Record players should be geared for

50 cycle operation. This can be done in Madrid or before departure from the States.

Plugs and sockets are of the European tubular type but adapters to the American blade type can be purchased locally.

Apartments and houses may have central or individual heating systems. Living room fireplaces are found in many houses, but small electric or kerosene heaters are useful and may be obtained at reasonable prices.

Spanish people customarily, have all laundry done in the home by the maids, or in the case of a large family, by a laundress who comes in once or twice a week. There are a few "French laundries" for special items such as large tablecloths, etc., but commercial laundries as we know them do not exist. The maids are usually excellent laundresses; however, as most laundry is done by hand and often in cold water with the aid of wooden or stone scrub boards, clothing and linens are worn out rather quickly. Automatic washing machines will work in most areas of Madrid on city water pressure. Wringer washers may be used in outlying areas where water is from a

Since there is a variety of frozen foods at the commissaries, deep freezers may be desirable. An electric refrigerator is recommended, as All-Navy Cartoon Contest ENS Nat B. Read, USNR



"Been here long?"

it is rare to find one in a furnished apartment.

Some houses and apartments are equipped with wood or coal ranges though most have supplementary gas burners. Gas ranges are recommended over electric stoves. Gas, coal and electricity rates are high in comparison with U. S. rates.

Inexpensive telephone service is available, but unless phones and wiring are already installed, an indefinite period may elapse before telephone service is established. Installation costs about \$17. Subsequent monthly bills are about \$2.00

Short-wave radios are welcomed.

You may wish to bring or purchase one at the Exchange. American and German makes are available at reasonable prices.

Torrejon Air Base now has in operation an FM radio station which features a variety of American programs, music and news. Madrid also has a television station. American sets will require internal retuning of the sound channel in order to receive this station. This can be done locally.

Domestic Help—If you bring your family, the employment of servants is expected. The cost of a servant approximates \$20 to \$25 for food each month, as well as wages of \$18 to \$20 per month.

Families with small children find it desirable to use the services of a cook (and a maid), and families living in houses frequently find it necessary to employ a part-time gardener.

The custom of giving each servant two weeks' annual vacation with pay and a Christmas bonus of a month's pay, further adds to the expense. A new Spanish Social Security Act now requires the employer to pay 30 pesetas (approximately 50 cents) per month and the employee to pay 10 pesetas. An optional insurance policy is available for about \$15 annually, but the Spanish Social Security is mandatory.

Domestic help in Spain is probably the best in the world for the money. All servants, with the exception of the daily helpers, live in. Shopping on the local market can be done by the cook or maid, if you wish. Newcomers should familiarize themselves with local food prices by occasionally accompanying maids on shopping tours.

Hints on Packing-There is a great difference in the manner of handling personal effects, depending upon whether your assignment is to JUSMG or to MAAG. Shipments destined for personnel assigned to JUSMG are handled through normal military channels and processed by Torrejon Air Base. Shipments destined for personnel assigned to MAAG are handled through Embassy channels. Because of this difference in procedure, MAAG personnel may be authorized to dispose of appliances and furniture before departure from Spain, but JUSMG personnel do not have this privilege.

If you have any question concern-

It's Not Always Size That Counts

The Navy, which mushed to the North Pole with Peary and later surfaced there in nuclear submarines, introduced a new wrinkle to Arctic exploration by using two light, single - engine airplanes to land at the top of the world.

The purpose of the flight was to transport scientists and their equipment to the Pole to obtain gravity measurements.

Flights of light planes had previously been restricted to a 300-mile radius of the Navy's Arctic Research Laboratory located at Barrow, Alaska. However, the two planes which reached the Pole used the Navy's two floating ice island research stations, ARLIS-2 and T-3, as way stations in an effort to begin a widespread gravity survey of the

Arctic Basin's unexplored regions.

At the time the flight was made, ARLIS-2 was some 170 nautical miles from the Pole and drifting slowly in a northerly direction.

The expedition took two weeks and temporarily occupied nine sites on the pack ice where scientists collected gravity data and made observations of ice conditions in the extreme northerly portions of the Arctic Ocean.

The data collected will be used in scientific interpretations of the earth's crustal and geological structure. Of equal importance to the scientific data was the future possibility of using light planes for support of scientific research conducted in the more remote regions of the Arctic Basin. ing the packing and shipping of personal effects you should contact your sponsor immediately for advice.

If you are arriving in Madrid by aircraft, it is recommended that you bring one complete uniform. Ladies should bring one hat for making calls upon arrival. Other useful items include light jackets, sweaters, washand-wear clothing. Pack carefully, for this clothing may have to last you for at least one or two months.

If you are arriving in Spain by sea, you can afford to be more generous in your packing, since you also have available cabin baggage, and your hold baggage should be received in Madrid at least one month after your arrival.

It is recommended that all household goods be shipped by means of the "Thru Container—Door to Door" method on a U. S. Government Bill of Lading.

So as not to delay unnecessarily receipt of household effects, personnel assigned to MAAG should be certain the address on the shipment reads "MAAG" and not "JUSMG."

For MAAG personnel only: Before packing electrical appliances and firearms, the make, model or type, and serial numbers should be recorded. This information, including the present value of the item, as well as the description, make, model, serial, motor and registration number of the privately owned vehicle being shipped, if any, should be forwarded to the MAAG Transportation Officer in advance of your departure for Spain so that customs clearance may be initiated. If make, model, and serial numbers are not listed a delay in receipt may result due to customs clearance procedures. For information on how to handle car papers see section on "Personal Automobile."

All-Navy Cartoon Contest James E. Linneball, YN2, USN



"A dummy gantline is a gantline reeved from the crosstree of the ladder on a mast up through the truck sheave and back. Any questions?"

For JUSMG personnel only: Private automobiles for JUSMG personnel are processed by Torrejon Air Base and do not require the information required for MAAG personnel. Household effects are also processed through normal military channels by Torrejon Air Base.

Allowances—The cost of living index (subsistence) and housing allowance are as authorized in the current *Joint Travel Regulations*.

Housing in kind or allowance—Royal Oaks is the only housing available to JUSMG/MAAG personnel other than "economy" housing. This is a rental guaranty housing project, consisting of 866 family housing units, located near Madrid. Officer personnel of JUSMG/MAAG are not required to live in the project as long as the units can be filled with Sixteenth Air Force and tenant organization families. This project is avail-

able to enlisted personnel of JUSMG/MAAG and a few POs elect to live in the project.

A temporary lodging allowance is payable to all military personnel who are required to live in hotel-like accommodations for the first 60 days after arrival in Spain or until permanent quarters are occupied. This allowance is also applicable for the last 10 days in Spain if you reside in hotel-like accommodations. Rates are shown in current *Joint Travel Regulations*.

Food — A type of the American supermarket system exists in Madrid; however, the Spaniard buys his staples from a dry grocer, vegetables and fruits from the greengrocer, fish from one shop, and meats from another. The USAF operates a commissary, base exchange, and Class VI facility in the Madrid area as well as at Torrejon Air Base. In most cases the items stocked in these facilities are of the same quality and carry the same brands as items stocked in stateside facilities.

You are strongly advised not to eat any local dairy products, including ice cream. The Commissary carries all types of U. S. dairy products, including ice cream, but substitutes reconstituted milk for fresh milk.

Fruits and vegetables are available on the local market. All should be washed thoroughly and preferably in a germicidal rinse. If possible, do not eat raw fruits and vegetables without first peeling them.

Clothing for men—Clothing of the conservative type is the general rule. Civilian clothing is worn by all military personnel of JUSMG/MAAG while on duty, with certain exceptions. Uniforms—winter or summer, depending on the season—are re-



FEAR NOT, that is if you pass ALL HANDS Magazine on to the nine Navymen who are waiting nearby.

quired for official calls and visits to Spanish installations, some official functions, official briefings, and for trips to U. S. military installations outside Spain.

At the present time the uniform is worn every Tuesday morning. The uniform is also required when reporting to the Chief of JUSMG/MAAG upon arrival for duty. Therefore, it is mandatory that you have in your possession upon arrival a complete uniform. You will need it at least twice during your first week.

Clothing of a weight suitable for Washington, D. C., will be needed in Madrid. Lightweight gabardines, tropicals, rayons and cottons are suitable for summer wear and woolens for winter.

The Exchanges in Madrid and at Torrejon Air Base stock clothing of good quality. There are also many outlets available for tailor-made suits which are of very high quality, well tailored, and inexpensive.

Clothing for Dependents—Many individuals find an increase in their social activities in Spain. Generally speaking, an elegant afternoon dress is appropriate for almost any function. Cocktail dresses are useful and advisable; bring relatively few evening dresses. Suits are most popular during the colder weather. Sweaters for both day and evening wear are used in all seasons.

Hats are always worn at weddings but are seldom worn at other social functions. Fashionable hats can be purchased more cheaply in Madrid than in the United States.

Shoes, stockings, underwear, formal dresses, one-piece bathing suits, and conservative beach costumes can be brought from the States, purchased locally, or ordered from the States through APO channels after arrival. Slacks or shorts are rarely worn by women in their homes, in the country, or on the beaches.

It is recommended that a sufficient supply of ladies' American shoes be brought. Few American women are able to get along with the local custom-made shoes, as they do not have the arch support of the American lasts. Men's and children's shoes can be purchased at the exchange or locally at reasonable prices.

Note that in Catholic churches ladies should, in addition to covering

the head, wear clothing that does not expose any part of the arms above the elbow.

Specific information concerning clothing can be furnished by your sponsor.

Passports—JUSMG military personnel do not require passports. However, all MAAG military and civilian personnel, including dependents over 16 must have a passport before arrival in Spain. This is applicable to dependents of JUSMG personnel also. Minors traveling in Europe unaccompanied by their parents (summer camp or school) will be required to have a separate passport. Minors can be included in the mother's passport.

Passports are of three types: Diplomatic, official (formerly special)

Entry Privileges — Each person assigned to JUSMG or MAAG is authorized to import duty-free his initial shipment of household goods (including one appliance of each type) and one automobile.

APO facilities may be used for sending and receiving mail, packages, and gifts. Duty regulations currently in effect should be checked for limitations on amount which may be sent duty-free. You should notify correspondents that import duty is charged on all packages sent to a local address in Madrid, rather than through the APO address.

Transient personnel may import the following duty-free: Personal effects and jewelry; typewriter; one

All-Navy Cartoon Contest LCDR B. E. Lodge, USN



"Our competitive seamanship exercises have just been canceled . . . you're not needed as chief observer now, Sir."

still and one movie camera, if accompanying traveler; and a reasonable quantity of film. Price tags should be removed from personal effects; otherwise such items may be subject to duty.

Customs inspection at the borders or airports is not severe. There is no customs where MATS flights and various visiting U. S. aircraft land.

In the event of an accident or an incident, you are normally required to appear before a Spanish judge, accompanied by a member of the U. S. Embassy to make a statement concerning the case. In most instances, this is at your convenience.

Required Immunizations—Smallpox, typhus, typhoid, tetanus, and polio immunization are required.

DD Form 727 for military personnel and the International Certificate for civilian personnel and dependents of military personnel should be up-to-date before departure from the United States. Facilities are available at the Base Hospital, for checking shot records and giving shots.

Language Training—It is important to learn as much Spanish as possible before coming to Spain. A basic knowledge of the language is necessary and a continuing effort to become proficient in Spanish is required of assigned personnel. Most U. S. organizations offer free classes in Spanish. These can be supplemented, if you wish, by private Spanish lessons which are inexpensive and readily available.

Medical Facilities—A USAF hospital, staffed by U.S. Air Force doctors, is in operation at Torrejon Air Base. This hospital can provide complete medical care and examination to include eyes, EKG, and X-rays

The Dental Clinic in the hospital has adequate facilities. Insofar as possible all dental work should be completed before you arrive in Spain. There are several Spanish dentists in Madrid who do excellent dental work.

The British-American Hospital, established in the University City area of Madrid, is modern and efficient.

Finance and Banking—The monetary unit in Spain is the peseta. Both paper money and coins are used. Paper money is made in denominations of 5, 25, 50, 100 and 1000 pesetas. Coins are used in denomina-

tions of 1, 2½, 5, 25 and 50 pesetas, plus denominations of 10 and 50 centimos. An amount of 100 centimos is equal to one peseta, and at the present rate, 59 pesetas and 80 centimos are equal to \$1.00.

There is no limit on dollar currency or dollar instruments which may be brought into Spain, but according to law, you must declare all foreign currency.

Tipping—Though a service charge of 15 per cent has been added to most hotel and restaurant bills, it is customary to give a small personal tip in addition. In restaurants five to 10 per cent of the total bill is considered sufficient.

Transportation and Travel — Air service to and within Spain is very satisfactory. One commercial airline has its terminal point in Madrid and another in Barcelona. A Spanish airline provides good service to points in Spain. MATS has a terminal at Torrejon Air Base.

Ocean travel by commercial means is excellent. Also Military Sea Transportation Service (MSTS) vessels call regularly at Spanish ports.

Rail travel from a Spanish port of entry to Madrid is satisfactory although trains are slow and often overcrowded. Dining facilities on trains are meager and there are no provisions for very small children.

Personal Automobile—You are authorized to import duty-free one automobile in the first installment of personal effects.

Any popular American car is practical, with light- or medium-weight cars appearing to be more suitable for Spanish roads and traffic conditions. Service and repair agencies are reasonably adequate except for automatic transmissions. U. S. motor oil, as well as spark plugs, windshield wipers, brake fluid, fan belts, tires, and some standard parts can be purchased locally or at the Base Exchange. Replacement parts and special kits can be purchased by mail. Car insurance of all types can be purchased in Spain.

Gasoline coupon books may be purchased at the Base Exchange. A 200-liter book (approximately 50 gallons) costs \$9.50 at present. Service stations generally carry 96 octane gas, but at one Madrid station it is possible to obtain approximately 100 octane gas for your car.

Grains of Salt-



Schools — A military dependents' school, including all grades of grammar school and high school is available. The high school is accredited by the North Central Association of Colleges and Secondary Schools. A private U. S. school was opened this year in Madrid.

There are many good private schools available in Madrid, with relatively low tuition rates—\$19 to \$56 a quarter. Instruction in these schools, with one or two exceptions, is in Spanish. Most of these schools are run by religious orders and are not coeducational.

Spanish is taught in all grades of the dependents' school, and French is available in most grades. Piano, guitar and other musical training is readily available from skilled Spanish private instructors at very reasonable prices.

Debarkation and Reception — Personnel traveling via commercial ves-

All-Navy Cartoon Contest Kenneth O. Niles, RMC, USN



"Am I working this paint gun right, Chief? . . . Chief? . . . Oooops!"

sel debark at Algeciras, Spain. Those traveling via MSTS vessels debark at Barcelona. Overland travel from these ports to Madrid is made by train. Military representatives provide reception at ports and arrange for movement of accompanied hold baggage. A representative (JUSMG or MAAG) meets arrivals at the Madrid railway station.

Personnel traveling via MATS arrive at Torrejon. Those traveling via commercial air arrive at Barajas Airport. A representative (JUSMG or MAAG) meets new arrivals.

Be sure to keep the chief of the JUSMG or MAAG section to which assigned fully informed of mode of travel, date of departure and date of arrival in Spain. A TWX sent just before departure from the ZI will greatly assist the JUSMG or MAAG representative in his reception.

Social Life—Spanish hours differ somewhat from usual American hours. Generally speaking this means—breakfast 0830 to 0900; lunch hour 1400 to 1630; cocktails 2030; dinner 2130, 2200 or later. All stores are closed during the lunch hour. Restaurants usually open for the evening meal at 2100 hours. Calling hours are from 1700 to 1900.

Leave and Pass Policy—You are encouraged to avail yourself of the 30 days' leave authorized per year. Generally short leaves of less than one week are discouraged. Because of the distance involved in traveling to the various boundaries in Spain or crossing the borders into other countries, it is believed that a minimum of seven days' leave is required.

For the points of interest in and near Madrid, normal off-duty time on week ends and holidays is more than enough to see these places.

Recreation—Clubs with facilities for tennis, golf, swimming, horseback riding, etc., are available. Equipment for most sports can be purchased locally.

Torrejon Air Base has NCO, Officers' and Enlisted Men's Clubs.

The U. S. Information Service has a circulating library which includes children's books. The library has little information on Spain, as its primary aim is to teach Spaniards about the U. S. Torrejon Air Base has an adequate lending library.

Amount of Money Recommended on Hand—New arrivals in Spain soon

discover that their initial expenses are deceptively high. A partial pay and travel pay may be drawn immediately upon arrival; normal pay and the special allowances at the end of the month. Here are some of the ways your money will be spent in the first few weeks.

 Temporary quarters in a hotel or residencia.

 Food for yourself and family, including many meals in restaurants.

• Payment of first month's rent in advance, plus an extra month's rent when you find an apartment.

• Travel around the city, initial purchases at the Exchange.

Travel to entry point to pick up car.

• Initial dues to join a club, etc. Married personnel accompanied by dependents should have on hand \$400 when they arrive in Spain. Married personnel unaccompanied by dependents need about \$300. Bachelors can do with \$200 to \$250. Unusual monthly expenses initially range from about \$200 for bachelors to \$400 for personnel with dependents.

Hardship May Result From That Extra Per Diem Pay

Navymen who receive orders authorizing per diem, as well as those who initiate such payments should be wary of authorizing and receiving payments of per diem for periods of more than six months. Here's why:

Although payment of per diem may not normally exceed six months, auditors are finding an increasing number of instances in which such payments have been authorized for much longer periods—sometimes for as long as four years.

In most cases, the payments were made and received in good faith. However, when the accounts are audited, exception is taken to such payments and, in some cases, the Navyman on the receiving end has had to make a substantial refund to the Treasury.

It takes almost no imagination to know this works a considerable hardship on the Navyman who may have spent the money he thought he had. Also, authorization of a payment to which exception is taken reflects no credit upon the individual or organization which authorizes such a payment. The payment of per diem is for one purpose—to compensate individuals in a travel status for the extraordinary expenses they incur away from home. It isn't supposed to be a reward or incentive pay for certain duties.

Those who write orders should make certain the payment of per diem is actually proper under regulations. If there is any doubt, the case should be referred to the Chief of Naval Personnel for advice.

New Leadership Manual To Describe Best Practices and Procedures for COs

The Navy has always emphasized the development of better leadership for attaining peak combat readiness.

Among Your Souvenirs

• RELICS WANTED—A search for old ship flags, commissioning pennants, pre-World War I uniform items and small arms, and other relics of historical interest, is being made by the Office of the Navy Curator in hopes of rounding out its collection at the Naval Historical Display Center.

The Center, which opened recently in Washington, D. C., has room for any suitable relic that helps tell the story of the U. S. Navy's his-

torical development.

Perhaps you have an old flat hat ribbon which is inscribed with a ship's name, an old sextant or barometer, a steaming log, a picture or two, an old sword, pistol, carbine, dirk, a historical document, or some other Navy item that's been gathering dust as a souvenir.

If you possess such a relic, and wish to share it with the public, you are urged to contact the Navy Curator. If your contribution is suitable, and you provide background information, it will become part of the growing collection on display at the Historical Display Center, or at some other Navy exhibit. You, as donor, will receive full credit when your contribution goes before the public.

If you can help, contact: RADM E. M. Eller, usn (Ret.)

The Curator, Department of the Navy

Office of the Chief of Naval Operations

Washington 25, D. C.

As an aid to commanding officers, BuPers has published the *United States Navy Leadership Manual* which contains information that can assist in their everyday exercise of leadership. The manual also includes an up-to-date list of leadership materials available in the Naval Supply System.

The new Leadership Correspondence Course (NavPers 10903A) is available; and other courses containing sections on leadership are in the List of Training Manuals and Correspondence Courses (NavPers 10061).

Leadership training is given in officer candidate courses, in curricula at the U. S. Naval Postgraduate School; in all Class B schools; and at the Petty Officers Leadership Schools (Class C) located at Norfolk, Great Lakes and San Diego.

Leadership Field Teams are available to assist commands with their leadership programs. Their services, however, must be requested by the command which desires them. A list of leadership teams, their addresses and the areas they service is included in BuPers Inst. 5390.2B.

Team assistance is frequently in the form of a two-hour command presentation. A more advanced effort may include demonstrations to selected officers of problem-solving techniques and discussion methods.

Because conditions vary, no rigid methods of leadership development can be prescribed for the Navy as a whole, and commanding officers are therefore expected to select the materials and methods of leadership instruction most suitable for their commands.

In any event, BuPers Inst. 5390.2B requires that they review their leadership standards periodically and provide programs for instruction in leadership principles and practices.

Only high quality officers and petty officers should be chosen to fill quotas at leadership schools and courses, and graduates of leadership schools should be employed in the commands' leadership efforts.

Commands are urged to submit new ideas on leadership training and comments on the effectiveness of leadership materials, field teams and graduates of the leadership schools through channels to the Chief of Naval Personnel. Belay Those Requests For Award of Armed Forces Expeditionary Medal

If you've participated in any of a number of overseas U. S. military operations since 1 Jul 1958, you may be eligible to receive the new Armed Forces Expeditionary Medal which will be awarded to individual Navymen as soon as a list of eligible ships and units is compiled and the medals are available in sufficient numbers.

Conditions under which the medal can be earned are listed in SecNav Inst. 1650.19A. In general, it may be awarded to Navymen who participate in any U. S. military operation that encounters armed opposition, and those who are placed in a position to encounter hostile action by foreign armed forces.

The medal is authorized for three different categories of operations. The following have thus far been determined eligible for the periods shown:

- United States Military Operations—Service in Berlin between 14 Aug 1961 and 1 Jun 1963; Lebanon between 1 Jul 1958 and 1 Nov 1958; Quemoy and Matsu Islands between 23 Aug 1958 and 1 Jun 1963; Taiwan Straits between 23 Aug 1958 and 1 Jan 1959; and Cuba between 24 Oct 1962 and 1 Jun 1963.
- United States Operations in Direct Support of the United Nations—Participation in U. S. operations in direct support of the United Nations in the Congo between 14 Jul 1960 and 1 Sep 1962.
- United States Operations of Assistance for Friendly Foreign Nations—Participation in U. S. operations in Laos between 19 Apr 1961 and 7 Oct 1962, and in Vietnam between 1 Jul 1958 and a date yet to be announced.

To qualify for the medal, you must have been a bona fide member of a unit engaged in one of the above operations, or must meet at least one of the following requirements:

- Have served at least 30 consecutive days in the area of operations.
- Have been engaged in direct support of the operation for 30 consecutive days or 60 non-consecutive days, provided this support involved entering the area of operations.

- Have served for the full period when an operation was of less than 30 days duration.
- Have been engaged in actual combat, or duty equally as hazardous as combat duty, during the operation with armed opposition, regardless of actual time spent in the area.
- Have participated as a regularly assigned crew member of an aircraft flying into, out of, within, or over the area in support of the operation.
- Have been recommended or attached to a unit recommended by the Chief of Naval Operations or a commander of a unified or specified command.

This medal is awarded only for operations for which no other U. S. campaign medal is approved.

Only one medal may be awarded to any one person. (For succeeding operations which justify such an award, one bronze service star may be worn on the medal or ribbon bar, as prescribed by Navy Uniform Regulations. A silver star is worn in lieu of five bronze stars.)

The new medal takes precedence immediately after the Antarctica Service Medal, and may be awarded posthumously.

If you believe you are eligible for the Armed Forces Expeditionary Medal, you are requested to withhold any inquiries until the list of eligible ships and units is completed. Then your eligibility can be verified.

Further instructions will be issued when the lists are published and the medal is available for distribution.

WHAT'S IN A NAME

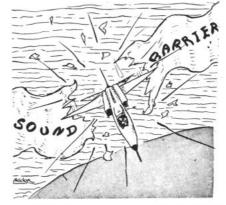
Sonic Boom

The abrupt, startling sound of the sonic boom is an accepted phenomenon of the age of supersonic flight. Exactly what it is, however, and what it can do, is widely misunderstood.

Sonic booms come suddenly, without warning. Most are startling; the complete absence of fire, smoke, lightning, or some visible evidence of their occurrence, makes them difficult to understand.

Contrary to popular belief, a sonic boom does not occur only when the aircraft "breaks the sound barrier." The boom does, however, begin at this point.

Sound waves normally trayel about 762 miles per hour at sea level. The boom is the result of pressure waves which build up around an aircraft flying faster than the speed of sound. These pressure waves come together to form two cones extending back from the nose and tail of the aircraft, in a



pattern about like the one a boat makes, speeding through water.

The waves follow the path of the aircraft, and travel to the ground at the speed of sound. They become audible when they slap against the surface of the earth. (The same kind of pressure wave is created by a common thunderclap.)

In level flight, at supersonic speed, an aircraft actually "drags" the pressure cones, as long as its speed is faster than the speed of sound. As the lower edges of the cones are dragged along the ground, the pressure pulse is heard as a delayed boom.

The width of the path, and the intensity with which the boom is heard, will vary depending on the altitude, size, weight and speed of the aircraft, the temperature, wind, terrain and amount of moisture in the air. At times a boom may not be heard at all (atmospheric conditions may dissipate the shock waves before they reach the ground).

Aircraft test and research data indicate that sonic boom pressures cannot cause structural damage to a house or building, or directly injure a person. Tests have shown it takes pressures of 70 or more pounds per square foot to damage buildings. (Under normal conditions, pressure from a sonic boom does not exceed five pounds per square foot. The strongest sonic boom on record, 33 pressure pounds per square foot, was measured on a mountain top, only 300 feet below the passing aircraft.)

At present, only military aircraft are capable of creating the sonic boom. Before long, however, civilian airliners and transport craft will travel at supersonic speeds.

BOOKS

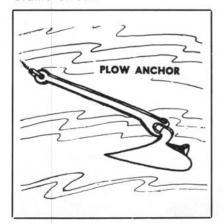
ENTIRE WORLD COVERED IN THIS MONTH'S SELECTIONS

FOR A CHANGE from the grim threats of every variety that seem to hang over each of us today, let's look at a book that will help you get away from it all. We suggest you try Sailing and Racing Catamarans, by CDR Edward F. Cotter, uscc, the next time you drop around to your ship or station library.

Catamarans are a relatively new twist on the old, old art of sailing and, as yet, are more-or-less little known to the average sailing enthusiast. CDR Cotter does his best to rectify this situation. An old-timer in the art himself, he gives a most comprehensive picture of these twinhulled sailing craft that are noted for their speed and easy maneuverability. His discussion ranges from the cats' development to price ranges, manufacturers and distributors and racing tactics. The more obvious subjects such as rigging, launching and setting sails are, of course, thoroughly covered.

The Americans, by Oscar Handlin, appears to be a logical selection to follow our brief excursion upon the waters. Handlin is less concerned with what is known as formal history than he is with the development of attitudes, goals, manners and morals. Nevertheless, he also manages to include a substantial amount of solid history. He goes back as far as the East India Company, which began as a strictly commercial enterprise, and shows how such a get-rich-quick scheme developed into a stable society. He goes on to describe how this society became a culture which, in the 17th and 18th centuries, was

Grains of Salt-



at first provincial and dependent on Europe, later breaking free into independence. You'll find it most interesting.

In referring to *The Americans*, we touched lightly upon the matter of history. Now, we'll bear down a little with a few terse comments on **Down Like Thunder**, by Glenn Tucker and **The Battle For Guadalcanal**, by Brigadier General Samuel B. Griffith, USMC, (Ret.).

Dawn, which is devoted entirely to the Barbary Wars, covers those years when the United States emerged as a national entity, reaching out to protect its own and to prove to the world that it had become an international power. In his account, Tucker tells of the heroes with whom most Navymen are more or less familiar-Bainbridge, Dale, Decatur, Lawrence, Preble, Rogers, Somers and Baron-in considerably greater detail than is usually found. He covers the ships, too-Constellation, Constitution, United States, Essex and George Washington-in much the same style.

Guadalcanal describes the series of vicious land battles, the defense of Henderson Field, and the naval engagements that eventually led, some six months after they began, to one of the first U. S. victories in World War II. Griffith manages to give the flavor of the stifling jungle fighting, but this is more than a straight battle narrative. He has a few pointed comments on some of the blunders and miscalculations committed by both sides that prolonged the fighting.

It's possible, with only a slight flexibility of the term, to suggest that the following two titles might also be considered as history.

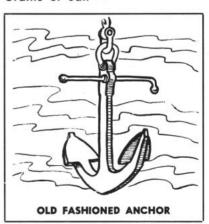
Ever been in Lower Mekong? We hadn't heard of it, either, until we ran across a book of that title, written by C. Hart Schaaf and Russell H. Fifield. Although it sounds somewhat like a gag line, actually the Lower Mekong is one of the great rivers of Asia, and runs through Laos, Thailand, Cambodia and Vietnam—as well as a number of other countries. The book describes one of the greatest economic developments of our time. In these four nations, one of the biggest streams

in the world is in the process of being harnessed for the benefit of mankind. Either directly or indirectly some 40 million people stand to benefit from the many uses of the river. The plan, under the sponsorship of the United Nations, cuts across the international boundaries of four sovereign states, and the authors discuss in considerable detail the significance of this tremendous project.

So much for present history. Future history is covered by Harnessing Space, by Willy Ley. Here, Ley attempts to point out in what areas of living the influence of space sciences is likely to be felt. Quoting extensively from congressional committee reports prepared for Congress, he insists that the principal aims of space research are intended for practical and peaceful purposes: Global weather forecasting, intercontinental transmission of television, worldwide communication, navigational aids, planetary probes and manned orbital flights. Space research, Ley insists, is not for military purposes alone. He presents his case well, as he should, for he has written books on similar subjects.

For fiction, we turn to **To Build A Ship**, by Don Berry, a robust, he-man novel in the grand tradition, with one twist. The female over which all the boys are fighting this time happens to be a ship. The scene is Oregon; the time, the 1850s. Stranded from civilization through the death of the captain of a oncea-year ship, a handful of young men decide to build their own. It's not as simple as it seems, they discover, but it all turns out in the end after a spell of murder, treachery and death complicates the proceedings.

Grains of Salt-



DECURATIONS & CITATIONS



"For exceptionally meritorious service to the Government of the United States in a duty of great responsibility . . ."

★ Anderson, George W., ADM, usn, for service as Chief of Naval Operations, principal naval advisor to the President, and member of the Joint Chiefs of Staff. from August 1961 to August 1963. Under his skillful and effective guidance, the operating forces of the Navy have contributed significantly to our national posture and have carried out their world-wide responsibilities with a view toward enhancing the prestige of the United States and its objective of world peace. Admiral Anderson's knowledge and understanding of the complexities of international relations, his recognition of the requirements generated by swiftly paced, changing world situations, and his dedication to high military standards have been applied effectively toward keeping the Navy strong and maintaining the United States in a pre-eminent position among the maritime powers of the world.



"For exceptionally meritorious conduct in the performance of outstanding service to the Government of the United States . . ."

* BOGARD, Thomas E., SOCS, USN, for service from 11 Aug 1961 to 1 May 1963 while serving on board uss Wilkinson (DL 5). As the ship's representative responsible for the installation, maintenance, and operation of the prototype AN/SQS-26 (XN-2) sonar, Bogard, throughout the installation and technical evaluation of this newest and most important sonar, consistently made organizational recommendations and implemented maintenance procedures which helped markedly to avoid or minimize delays. His technical knowledge and outstanding leadership permitted extensive modification of the AN/SQS-26 (XN-2) and emergency replacement of the transducer, which would not have been feasible at such a late date without his efforts. Nine months before the system was ready for testing, he devised, developed, and conducted an excellent training course for shipboard personnel.

★ Mahinske, Edmund B., CDR, USN, for services during the period August 1957 to December 1962 while serving as Assistant Naval Tactical Data System Project Officer, Bureau of Ships. During this period CDR Mahinske made important design contributions in the field of high-speed automatic data links, including both the over-all design concept and the details of circuitry and equipment design. His contributions in this field have resulted in significant improvements in exchange of combat information in naval tactical situations.

★ STOUTENBURGH, Joseph S., CDR, USNR, for services during the period July 1957 to October 1962 as Assistant Naval Tactical Data System Project Officer, Bureau of Ships. During this period CDR Stoutenburgh contributed outstanding direction and engineering skill in the design of programs and equipments in the complex Naval Tactical Data System. His contributions have resulted in advanced concepts in system design and equipment reliability.

★ SVENDSEN, Edward C., CAPT, USN, for services during the period June 1957 to July 1961, while serving with the Bureau of Ships as Naval Tactical Data System Project Officer. During this period, CAPT Svendsen contributed outstanding direction and engineering skill toward the early, successful completion of the Naval Tactical Data System. His contributions to this program have resulted in significant improvements in Fleet anti-air warfare capability.

Gold Star in Lieu of Second Award

* KNICKERBOCKER, William L., RADM, SC, usn, for service from January 1957 through December 1961 while commanding the Military Medical Supply Agency, and from January 1962 through June 1963 while commanding its successor activity, the Defense Medical Supply Center. RADM Knickerbocker planned for, organized, and implemented one of the first elements of a radically new unified logistics support concept. As Executive Director, Military Medical Supply Agency, he was responsible in large measure for the increased level of supply support to the Fleet and the operating services of our sister services, and for significant economies-factors influencing the decision of the Secretary of Defense to expand a now-proven concept into the completely unified Defense Supply Agency.

Gold Star in Lieu of Second Award

★ MARTELL, Charles B., VADM, USN, for service as Deputy Director of Defense Research and Engineering (Administration and Management) from 9 Mar 1961 to 19 Jul 1963. Responsible for all administration, management, and planning phases of research and engineering programs for the Secretary of Defense, and acting as the cognizant Deputy for the Defense Science Board, he made a distinctive contribution toward improving the efficiency and effectiveness of the Office of Director of Defense Research and Engineering.

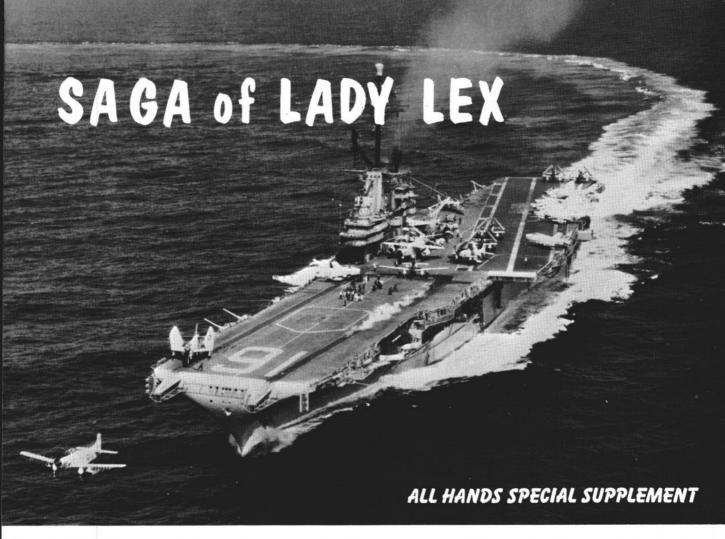
Gold Star in Lieu of Third Award

* Carson, Joseph M., RADM, usn, for service during October and November 1962 while serving as Commander Fleet Air Jacksonville. Throughout recurring periods of crisis and tension in the Caribbean area, RADM Carson carried out his responsibilities with marked professional skill and leadership. The success of the quarantine operations in 1962 was due in large measure to his notable contribution to the antisubmarine warfare effort and the monitoring of shipping bound to and from the Cuban area. RADM Carson was outstandingly successful in developing and implementing new and improved methods for the positive control of air space allocated for military and civilian use.



"For heroic conduct not involving actual conflict with an enemy . . ."

* HANVEY, Gerard R., SN, usn, for heroic conduct on the afternoon of 6 Jan 1963 while serving on board uss Hermitage (LSD 34) as pier sentry at East Quay Wall, U. S. Naval Amphibious Base, Little Creek, Norfolk, Va. When a man leaped over the side of the pier and plunged into the water eight feet below, Hanvey, who witnessed the incident, immediately dropped his rifle and helmet, rushed to the scene, and jumped into the icy water in an attempt to effect a rescue. Although pulled beneath the surface of the water several times by the struggling victim, Hanvey succeeded in keeping him afloat until help arrived.



TODAY THE NEW Lexington takes up where the old left off. May her career be full of glorious achievement. She will play her part. She will help carry out our pledge, that freedom shall not perish from this earth."

The strong voice of the man speaking echoed throughout the Fore River Shipyard in Quincy, Mass. It was magnified a hundred times by the public address system set up for the occasion, but sometimes it trembled. The time was nearly 21 years ago.

The carrier about to be launched was the subject of his dedication; it was the namesake of a ship he once commanded. The Japanese had sunk his ship, pounded it with bombs and torpedoes, during the aerial onslaught at the Battle of the Coral Sea in May 1942.

Rear Admiral Frederick C. Sherman, last man to leave the old Lexington (CV 2) before she was sunk, spoke of the accomplishments of his old ship and told how the new Lex would carry on in typical Lexington fashion. As CV 16 slid down the ways and into the waters for the first time, the words of Rear Admiral Sherman accompanied her.

Five months later, on 17 Feb 1943, uss Lexington (CV 16) was commissioned at the South Boston Navy Yard in Massachusetts, fifth ship bearing that name for

the United States.

TODAY, MORE THAN two decades later, Lexington is still going strong. This is her story.

When Lex went to sea the war in the Pacific was some 15 months old, but she still had time to make the enemy pay a high price for this single U. S. aircraft carrier. At war's end the Lex island structure displayed flags of the Rising Sun with little room to spare. More than 850 Japanese aircraft had been claimed destroyed by the carrier's aircraft and gunners while 300,000 tons of enemy shipping were sunk and another 600,000 tons damaged, according to claims.

After commissioning, Lexington underwent practice maneuvers and shakedown until the early part of the summer, 1943. Air Group 16 had come aboard on April 23 and the two 16s were to make an admirable team for combat. They reported to Pearl Harbor on 9 August.

For Lexington Minutemen and other Pacific units, Pearl was the only true liberty around. The other "ports" -Eniwetok, Majuro, Ulithi-permitted the sailor to shake off his sea legs for a while, but that was about all they offered.

EX HAD HER FIRST ACTION experience during routine raids on Tarawa and Wake beginning in September, and started making a name for herself during the fight for the Gilberts (19-24 November). On 23 November, 12 aircraft from CV 16 met a group of 20 enemy aircraft and, in the ensuing battle, accounted for 17 out of the flight. On the following day another 12 Lex pilots reported 12 more as "definites." In the two air battles, American casualties were naught.

CAPT (later Admiral) Felix B. Stump, first commanding officer of Lady Lex, said in his action report that he "would be interested to know if, in the brilliant

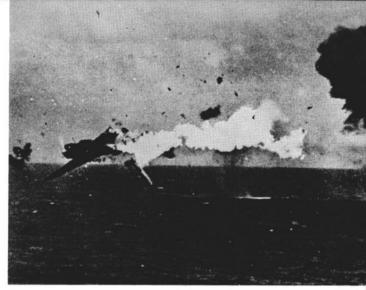
records of other fighting aircraft units in this war, such a record has been equalled." Continuing to explain this outstanding performance in *Lexington's* first real encounter, he told how "it is probable that the courageous and aggressive action on the part of Fighting 16 demoralized the Japanese Air Command in the Marshalls." He said they were so demoralized that the enemy wasn't able to send any more planes toward the Gilberts while *Lex* remained on the intercept station. By preventing enemy air attacks from the Marshalls, CAPT Stump said, "Fighting 16 contributed an appreciable share to the successful conclusion of the conquest of the Gilberts."

A FTER THE GILBERTS, Lexington was dispatched to concentrate on Kwajalein Atoll in the Marshalls. In the course of the first strike, including raids on enemy vessels and fights with Japanese aircraft while transiting to and from these vessels, the "twin 16s" performed remarkably. In only one day the air group destroyed 20 of the opposing planes in the air and three bombers on the ground, and damaged two cruisers and one good-sized cargo ship.

Meanwhile, Lex underwent a surprise torpedo attack about noon. Two aircraft were spotted closing in fast on the starboard side and Lexington was first in the task unit to open fire. The intense fire from the carrier sent both aircraft to the water flaming, one 200 yards from the ship and the other 500 yards away. More aircraft closed in and, in the space of three minutes, Lex gunners accounted for three enemy torpedo planes.

That night another torpedo attack was launched against Lexington and her accompanying vessels, but the prime target was obviously Lex. Float lights were dropped in the course of the attack and the carrier was perfectly silhouetted. Ten minutes after the lights were released, Lady Lex shuddered from a torpedo hit and immediately settled five feet by the stern. The hit was one of two the carrier was to receive during the war, and since her commissioning in February 1943 she had been in the combat zone for 21 months. Eighteen of these were spent west of the 180th meridian.

LEXINGTON RETURNED to Pearl with her gaping torpedo wound and received temporary repairs before steaming to Bremerton, Wash. At the same time, in the first of a series of Japanese claims, Tokyo Rose reported the carrier sunk by the Imperial Navy's aircraft. According to a cruise book saved from the war, "Her loyal fans aboard the ship felt her story slightly exaggerated." It was at this time that Lexington received a new name—



HOT SPOT—Lex's gunners accounted for 15 aircraft downed, and 5 assists, from Nov '43 until war's end.

given to her by Tokyo Rose. She became the "Blue Ghost" to the Japanese, with various reasons attributed to the nickname. Unlike most carriers in the Pacific she was not covered with camouflage. From a distance she took a ghostly blue appearance. But the name "ghost" had more significance. After reporting her sunk, Tokyo Rose received additional reports of *Lex*—still fighting, still moving closer to the Japanese homeland.

When Lexington appeared in the Pacific once again early in 1944, the base of operations for CV 16 was switched to Majuro in the Marshalls, where Vice Admiral Marc Mitscher brought his flag aboard on 8 March 1944.

March 1944.

With Admiral Mitscher directing Task Force 58 from Lex, the carrier became the center of the largest fleet of ships ever to be concentrated in one tactical command up to that time.

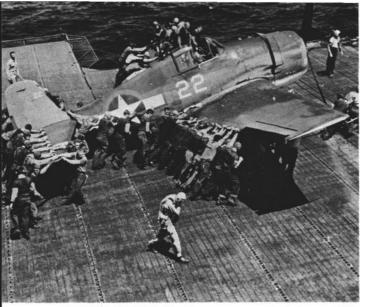
On 18 June 1944 the Task Force steamed westward to search for an enemy carrier force which had been reported approaching the Marianas to attempt to dislodge our landing forces. The Battle of the Philippine Sea opened early on the following morning when the first of many enemy raids was intercepted by Combat Air Patrol.

That was the day of the "Marianas Turkey Shoot," a term credited to a member of *Lexington's* Fighter Squadron 16, CDR Paul Buie. The enemy planes were either "splashed" or forced to turn back, and so were the planes of the many other raids which followed throughout the day. By the end of 19 June, over 300

PAST AND PRESENT—Hellcat gets the go signal in 1944 and (rt.) Crusader readies for launching from Lex.







GROUND WORK—Musclepower provided the mobility for Hellcats and other WW II planes aboard Lexington.

enemy planes had been destroyed. Lexington's score was 45 sure, 4 probables, and 3 destroyed on the ground.

During this battle there occurred another incident which has become famous in Lex's history.

THERE IS A SMALL PLAQUE in Lexington's flag plot, commemorating a great decision—one that is a legend today for the Lady. "On this bridge Admiral Mitscher made his famous decision to turn on the lights."

The lights spoken of were turned on during the battle. A scout plane from the carrier *Yorktown* had spotted the enemy fleet about 340 miles to the west of Task Force 58. Despite the great distance, an afternoon raid was made and the American carrier planes chalked up the destruction of one carrier, a tanker and a destroyer and damaged several other ships.

The return trip for the aircraft was a harrowing experience, both for the pilots and the men in Task Force 58 who awaited them. It was after dark and many of the planes were shot up with fuel gauges touching on "empty." ADM Mitscher weighed the drawbacks of a touchy situation—should he let the force continue steaming in a blackout condition and protect it from the submarines? Or, should he turn on the lights to help the pilots find their ships and land aboard.

The order was given, "Turn on the lights!" The entire horizon suddenly lit up and searchlights cut into the black skies to guide the groping aircraft to their carriers. An engine was heard, then another and then a steady, loudening hum. In the next hour floundering aircraft landed whenever possible.

In one instance, two aircraft flew in the groove together and landed aboard *Lexington* side by side. More aircraft were lost in landing attempts than Japanese guns had destroyed during the strike.

Score one more historical accomplishment by Lexington during the Battle of the Philippine Sea. She made the final strike off Cape Engano to send the Japanese carrier Zuikaku to the bottom. Zuikaku was the last afloat of the six Japanese carriers that had participated in the infamous raid on Pearl Harbor.

On 5 NOVEMBER Lex received her second war wound. It was at this time the carrier was introduced to a final effort by the Japanese to halt the Allied thrust

northward. The new word in Pacific warfare was kamikaze.

During the early afternoon *Lexington* guns were barking at a formation of *Zekes* attacking the carrier. At one point in the battle two of the enemy aircraft dove together. One was obliterated by a direct hit from a 5-in/38 and the other, although set afire, continued its plunge. The enemy pilot found his mark—the ship's island structure. Forty-seven men were killed in the blast and 127 were injured. Despite the brief shock and confusion, the ship continued normal operations. For the crew the most noteworthy report of the day came from Japan and the broadcast of Tokyo Rose — *Lexington* finally was sunk.

In the last months of the war *Lexington* continued spreading havoc among the Japanese—up the Solomon chain, through the Carolines, Bougainville, New Guinea, Okinawa.

On 5 Sep 1945 Lexington steamed into Tokyo Bay and rested for the first time in 67 days. The war was over.

The "Blue Ghost" emerged from World War II as

Lexington (CV2) Had

WORLD WAR II's first Lexington was CV 2. Although her fighting days were short, she earned two battle stars, participating in the Pacific raids on Rabaul, Lae and Salamaua, and in the Battle of the Coral Sea.

Originally designed as a battle cruiser, she began an interrupted career when her keel was laid 8 Jan 1921. Work was suspended 8 Feb 1922 in accordance with the Washington Treaty on the limitation of naval armaments. On 1 Jul 1922 Congress authorized conversion of *Lexington* to an aircraft carrier and work was resumed.

Lexington had an over-all length of 888 feet; extreme beam, 106 feet; mean draft, 24 feet, 1½ inches; full load displacement, 41,000 tons; and her trial speed was 34.24 knots. She was armed with eight 8-inch/55 caliber breech-loading rifles; twelve 5-inch/25 caliber anti-aircraft guns and four 6-pounder saluting guns.

Placed in commission at Quincy, Mass., on 14 Dec 1927, she passed her shakedown cruise with flying colors. Then she steamed for the West Coast, joining the Battle Fleet at San Pedro, Calif., on 7 Apr 1928. Based at San Pedro, she operated on the West Coast as a unit of Aircraft Squadrons, Battle Fleet, engaged in flight training, tactical exercises and battle problems.

O N 7 DEC 1941 Lexington was at sea with Task Force 12, transporting Marine planes from Pearl Harbor to Midway.

When the message "Hostilities with Japan commenced with air raid on Pearl" was received, *Lexington* immediately launched search planes to hunt for the

Japanese fleet.

At mid-morning she headed south to rendezvous with the *Indianapolis* (CA 35) and *Enterprise* (CV 6) Task Forces to conduct a search for the Japanese Task Force which was believed to be 200 miles south of Pearl Harbor and retiring. She conducted search operations souththe symbol of the carrier fight in the Pacific. Her aircraft had struck at Tarawa, Kwajalein, the Marianas, Palau, the Philippines, Truk, the Bonins, Formosa, Okinawa and Japan itself. *Lexington* had participated in nearly every major Pacific operation from September 1943 until the end of the war.

EX RETURNED to the states in time for Christmas 1945. She arrived at Seattle on 23 May 1946 for inactivation, and was placed in the Pacific Reserve Fleet at Puget Sound, Wash., on 23 April 1947.

For nearly nine years Lady Lex sat in the mothball fleet. The Korean conflict came and passed, the cold

war alternated between thaw and frost.

In August 1955 Lexington steamed once again—recommissioned and modernized with an angled deck, mirror landing system, two steam catapults and other accessories that made her an even more formidable weapon.

Since her recommissioning the carrier has alternated between deployments with the Seventh Fleet in the Far East and stateside operations with the First Fleet off the West Coast. She has participated in various naval, interservice and international maneuvers. In the Formosan incidents during the late 1950s, *Lady Lex* served as the backbone of the Seventh Fleet in that area—many times as flagship.

The 1960-'61 Lexington deployment to the Far East was climaxed by the touchy Laotian crisis. Every preparation for any eventuality was completed, and the 42,000-ton veteran flattop stood by. Then, after the situation had subsided to the normal cold war chill, Lexington resumed routine operations.

In January 1962, while she was in the Western Pacific, Lex was notified that she would steam around South America and relieve the carrier uss Antietam (CVS 36) in the Gulf of Mexico. Her new mission makes her a training carrier for aspiring Navy and Marine Corps pilots.

Her arrival in Pensacola.was delayed by the Cuban crisis. While undergoing a scheduled repair period in New York, she received orders to Norfolk to embark an airgroup and proceed from there to Mayport, Fla. The

a Short but Heroic Career in WW II

west of Oahu for a week and then returned to Pearl Harbor.

In mid-December 1941 she put out from Pearl Harbor with orders to raid Japanese forces on Jaluit Island, to relieve the pressure on Wake Island. This mission had to be cancelled because the Marshall Islands were receiving heavy air reinforcements, leaving little possibility of a successful suprise attack.

The Lexington Task Force was then ordered to take a position to support the Saratoga (CV 3) Task Force in reinforcing Wake Island. When Wake fell on 23 December, the two carrier task forces were recalled to Pearl Harbor, arriving a few days later.

Lexington conducted offensive patrols in the Oahu-Johnston-Palmyra triangle to prevent possible enemy raids until 31 Jan 1942, when she departed Pearl Harbor as flagship of Commander Task Force 11.

LEXINGTON began to see her first WW II action when Task Force Eleven headed in a north-north-westerly direction from Australia for an attack on the Japanese forces at Rabaul, New Britain.

In the morning of 20 February two enemy patrol planes snooping the Task Force were splashed by the Combat Air Patrol.

That afternoon the Combat Air Patrol was again vectored out, intercepting a wave of nine Japanese bombers and splashing five of them before they reached the Task Force. The remaining four planes made an unsuccessful bombing run on *Lexington*, and three of them were splashed by the Combat Air Patrol on retiring, including one crippled enemy plane damaged by *Lexington's* guns.

In the meantime a second wave of nine enemy bombers approached from the eastward. All fighters except two were pursuing the remnants of the last enemy group and were not in a position to intercept this new raid.

When the guns of one of the two remaining planes jammed, LT E. H. O'Hare put his plane between the approaching enemy and the Task Force, pressing his attack to destroy five of the enemy aircraft. For this action LT O'Hare was awarded the Medal of Honor.

Only four enemy planes reached the dropping point, and *Lexington* maneuvered radically, causing all the

SEE VEE TWO-Aircraft carrier USS Lexington (CV 2), as she looked before WW II. She was commissioned in 1927.





HELLO THERE—Lady Lex holds open house at Corpus Christi, Texas, while on duty in the Gulf of Mexico.

Commander of Naval Air Forces, Atlantic Fleet, praised the shipyard and *Lex* crewmen for their success in bringing the carrier to readiness.

Now in the Gulf of Mexico, Lexington acts in a train-

ing capacity. She carries her numerous campaign ribbons on the island structure with pride. One of them is the Presidential Unit Citation:

"For extraordinary heroism in action against enemy Japanese forces in the air, ashore and afloat in the Pacific War Area from Sept. 18, 1943 to Aug. 15, 1945. Spearheading our concentrated carrier warfare in the most forward areas, uss Lexington and her airgroups struck crushing blows toward annihilating Japanese fighting power; they provided air cover for our amphibious forces; they fiercely countered the enemy's aerial attacks and destroyed his planes; and they inflicted terrific losses on the Japanese in fleet and merchant marine units sunk or damaged. Daring and dependable in combat, Lexington, with her gallant officers and men, rendered loyal service in achieving the ultimate defeat of the Japanese Empire."

-R. J. Olive, JO3, usn.

LEXINGTON (CV 2)-Cont.

bombs to miss astern. She splashed one plane by antiaircraft fire and the remaining three were shot down by the returning Combat Air Patrol.

Lexington suffered no damage in this attack, but the enemy lost 17 out of 18 attacking planes. Lexington returned to the Coral Sea for offensive patrol until 6 March, when she rendezvoused with Yorktown (CV 5) (Task Force 17) and steamed again for New Guinea.

A RRIVING IN THE GULF OF PAPUA on 10 March, Lexington launched her planes to fly over the Owen Stanley mountain range and strike at Japanese shipping and installations at Salamaua and Lae, on the other side of the island.

The surprise was complete, and after inflicting heavy damage on the enemy, her planes returned to the task

BUSY TIMES — Crewmen prepare incendiary bombs on flight deck for raid on Gilbert Islands in 1943.



force without incident. Following this strike Lexington retired to Pearl Harbor, arriving at the end of March.

On 15 April the Lexington Task Force sortied from Pearl Harbor and steamed to join Yorktown (Task Force 17) southwest of the New Hebrides Islands. After effecting a rendezvous on 1 May, the two forces fueled within sight of each other until the following afternoon, when Yorktown peeled off to attack enemy landing forces at Tulagi, Solomon Islands. The two forces joined up again on 5 May and, the following day, were merged into one force under the tactical command of RADM F. J. Fletcher in Yorktown.

By this time the heavy Japanese naval concentration in the Coral Sea had made it obvious that the Japanese were planning an amphibious operation, most probably against Port Moresby, New Guinea. Accordingly, Admiral Fletcher sent an attack group of cruisers and destroyers to the Louisiades to intercept the enemy if he attempted to move toward Port Moresby. The carriers moved northward into the Coral Sea in search of the enemy covering force.

On the morning of 7 May 1942 Yorktown search planes reported making contact on an enemy force of two carriers and four heavy cruisers.

Strikes were immediately launched against this force and, although the original report was in error, Japanese light carrier *Shoho* and her escorts were near enough to the reported position to be sighted by the air groups.

Dive bombers and torpedo planes pressed the attack against Shoho, sinking the enemy carrier with the loss of only three planes. On the afternoon of 7 May, 12 bombers and 15 torpedo planes were launched from the still unlocated Japanese heavy carriers Shokaku and Zuikaku. These enemy planes made an uneventful search for the American carriers and were returning home when intercepted by Lexington and Yorktown fighter planes. Nine of the enemy aircraft were shot down in the ensuing dogfights.

As twilight came on, three of the enemy planes mistook *Yorktown* for their carrier, but managed to escape her gunfire as they crossed her bow. Three others made the same mistake some 20 minutes later, attempting to join *Yorktown's* landing circle, and one was shot down.

In the morning of 8 May 1942, a Lexington search plane made contact on Admiral Takagi's carrier striking force and an attack was immediately launched, inflicting severe damage on Japanese carrier Shokaku.

While the American planes were attacking the Japanese force, Yorktown and Lexington prepared for a return attack by the Japanese, for an intercepted message indicated that the Japanese were aware of the location of the American carriers.

SHORTLY AFTER 1100 the expected attack came. A total of 17 enemy planes were splashed by the combat air patrol and the Dauntless antisubmarine patrol, but other planes got through to attack the carriers. While Lexington maneuvered radically, and set up a hail of gunfire, enemy planes launched torpedoes at her from both sides of the bow.

At 1120 the first torpedo hit her and exploded just forward of the port forward gun gallery. A minute later, another torpedo hit on the same side further aft,

just opposite the bridge.

The torpedo assault was coordinated with a dive bomber attack which scored three hits. At the end of the air battle Lexington had a seven degree list to port, three engineering spaces were partially flooded, several fires were raging, and her elevators were out of com-

By 1300, damage control reported the ship on an even keel, that three fires were out and the fourth one was under control. Lexington's steering gear was intact,

she was making 25 knots through the water and conducting nearly normal flight operations. Her attack group returned and was landed.

At 1247 Lexington was shaken by a heavy explosion, caused by the ignition of gasoline vapors below decks. A fire broke out from the main deck down to the vicinity of the central station. Every effort was made to stop the fire, but it gradually spread aft and communications were lost.

At 1558 CAPT Frederick C. Sherman, fearing for the safety of personnel working below, ordered them to secure and come up on the flight deck. Internal explosions were occurring with greater frequency and the danger of torpedo warheads and bombs detonating seemed imminent. About an hour later the order was given to abandon ship, and the orderly disembarkation

The men went over the side into the warm water, and were picked up by nearby cruisers and destrovers. After ensuring that all the men were off, the captain and the exec too slid down a rope into the water, CAPT Sherman the last man to leave the ship.

Lexington was a raging inferno, with flames shooting hundreds of feet into the air. The destroyer Phelps (DD 360) steamed within 1500 yards of her and fired two torpedoes into her hull.

With one last heavy explosion the gallant fighting Lexington sank at 1956, Latitude 15°-20' South; Longitude 155°-30' East.

She left to her namesake the job of avenging her loss.

LAST LOOK-Lexington's crew fought fires for five hours but CV 2 went down in the Battle of Coral Sea in May '42.



50 YOU HAVE MONEY problems? That's too bad. Don't tell the men of uss Jupiter (AVS 8) about them. You'll receive no sympathy.

Not too long ago, the ship left Yokosuka for a 50-day cruise to six ports in the Far East. The first stop was Iwakuni, Japan, where the money used was Military Payment Certificates aboard

ship, and yen ashore.

At sea, three days later, all MPC was exchanged for U.S. dollars to bring the Jupiter men up to date with the currency in Okinawa, their next stop.

After Okinawa, the men kept their U.S. dollars, but not for long. The next port was Keelung, Taiwan, and they had to exchange the greenbacks for yuan.

The yuan gave way to Hong Kong dollars for the libertybound sailors when the ship pulled into Hong Kong; meanwhile,

on board ship, current currency was the U.S. dollar.

The day after leaving Hong Kong, MPC returned as legal tender aboard ship until the ship approached the Philippines. MPC was converted into pesos.

The magic money circle was completed when the ship arrived in Sasebo, Japan, where, once again, the formula was

MPC aboard ship and ven ashore.

The trick is, says Tommy Thompson, JO1, who passed this epic of high finance along to us, not to end up in Yokosuka with greenbacks, yuan, pesos or Hong Kong dollars.

True. But it has been our experience that money, in almost

any form, is handy to have around.

At times it's hard to realize how time flies. This was brought to our attention when we heard of the retirement of Chief Tex Modesett, GMC. As a rule, we make no big thing about retirement of a Navy Chief, but Tex is a little different. He was a member of the first UDT class conducted by the Navy. Time, 13 May 1943; place, Fort Pierce, Fla.

His training must have helped, for Tex took part in the invasions of Sicily, Normandy and Southern France during World War II. Equipment now considered standard in UDT work, such as Scuba gear and rubber suits, had not yet been developed. The early wartime missions were carried out using rubber boats rowed into the beaches. Plastic explosive charges were carried tied around the swimmers' bodies.

Tex had a busy day at Utah beach. There were quite a few obstacles, as he recalls, and the UDT men made fine targets for the defenders as they worked. Of the 200 demolition men who

took part in the invasion, many were lost in action or wounded.

As for Tex—"Not a scratch." And what does he plan to do in retirement? Become a swimming and Scuba diving instructor, of course.

You may have noted the fine touch of Dan Kasperick, JO1, USN, on our Report on Proficiency Pay in the September issue. Weeks of research went into this roundup, to get the background on this important subject. Our thanks to the Enlisted Personnel Division and Plans Division for their help in making this roundup as accurate as possible, and especially to LCDR R. M. Sudduth for his cooperation and guidance.

The all Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

valor and victory are the Navy's Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the dir.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

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 AT RIGHT: HIGH STYLE-A variety of Navy aircraft from CAG-15 maintain a tight formation while passing in review near the attack aircraft carrier USS Coral Sea (CVA 43).

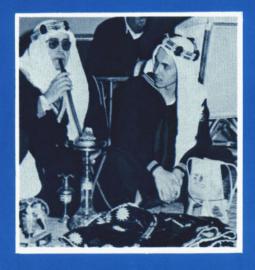














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